

# Tiling Products Middle East Edition



The Nicholls & Clarke Group is a business dedicated to the manufacture and supply of the finest building materials. Founded in 1875 in London, we have grown from servicing the capitals' building trades to becoming the largest privately owned national manufacturer and distributor of fine quality building products.

Quality manufacturing is at the core of our business and comes as standard. We own state of the art manufacturing facilities based across the UK and Central Europe. This gives us the broadest manufacturing capability available, allowing us to offer an extensive portfolio of product, more specialised than that of any of our competitors.

Since 2012 Nicobond products have been proudly manufactured in the United Arab Emirates. This has enabled Nicobond to build on its 50 year heritage in the Middle East offering high quality products to our business partners. Regional production allows Nicobond to respond quickly and competitively to our clients needs whilst reducing our global footprint maintaining our ethos of caring for the environment.

Nicholls & Clarke Group هي شركة مخصصة لتصنيع وتوريد أفضل مواد البناء. تأسست شركتنا عام 1875 في لندن، ونمت من تقديم الخدمات في مجال تجار البناء للعواصم إلى أن اصبحت أكبر المصنعين والموز عين الوطنيين في القطاع الخاص في مجال منتجات مواد البناء ذات النو عية الجيدة.

ويعتبر التصنيع القائم على الجودة هو جو هر أعمالنا ومعيار أداننا. نحن نمتلك مرافق تصنيع حديثة عبر المملكة المتحدة ووسط أوروبا. وهذا يعطينا أكبر قدرة تصنيع متاحة، مما يتيح لنا تقديم مجموعة شاملة من المنتجات، أكثر تخصصًا مما لدى أيا من منافسينا.

منذُ عام 2012 نفتخر بتصنيع منتجات Nicobond في الإمارات العربية المتحدة. و هذا مكّن Nicobond من البناء على مير اثها الممتد إلى 50 عامًا في الشرق الأوسط في تقديم المنتجات عالية الجودة لشركائنا في الأعمال. يتيح الانتاج الإقليمي لشركة Nicobond الاستجابة السريعة والتنافسية لاحتياجات عملائنا في حين يعمل على تقليص بصمتنا العالمية مع الحفاظ على أخلاقيتنا في مجال العناية بالبيئة.

## For your complete tiling needs

As leading, quality manufacturers and distributors of tiling products and systems within the tile industry, N&C Nicobond offer the complete tiling solution, with the ability to supply all the tools and materials required for tiling projects with varying requirements. With well over 55 years in the market, we have broad, unrivalled expertise and experience in providing solutions to help overcome different types of tiling problems, from day to day common issues, to the most challenging of installations where product performance and quality are vital.

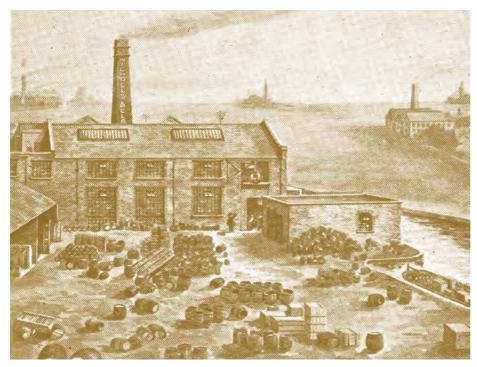
N&C Nicobond have the ability to offer invaluable technical expertise and advice for our client for the ultimate in confidence, reliability and service.

لتلبية احتياجاتك الكاملة للتبليط بالقرميد باعتبارنا مصنعين وموزعين رواد متميزين بالجودة في منتجات وأنظمة التبليط بالقرميد داخل صناعة القرميد، تقدم التبليط بالقرميد ذات المتطلبات المتنوعة. مع استمر ارنا لمدة 55 عاما في السوق، نمتلك خبرة وتجربة طويلة لا نظير لها في مجال توفير الحلول للمساعدة في التغلب على الانواع المختلفة من مشكلات التبليط بالقرميد اليومية الشائعة، وحتى أكثر المشكلات تحديا في التركيبات حيث يكون أداء المنتج وجودته أمران حيويان. تتميز N&C Nicobond تعربي العورة على تقديم والمنتج وجودته أمران حيويان. التقر المشكلات تحديا في التركيبات حيث يكون أداء المنتج وجودته أمران حيويان. التقة والمصداقية ومستوى الخدمة.



# Our history & heritage leading the way ahead...

Founded in London (UK) in 1875, Nicholls & Clarke have grown from strength to strength with over 140 years of experience and expertise in the manufacture and distribution of high quality building products. The journey saw huge developments into new areas of trade through diversifying and ongoing product development to meet the needs of different markets.



In the earliest days, it was the experimentation of raw materials for paint that formed an important part of the evolution of Nicobond Products.

The sensational discovery of emulsion paint was made through experimenting with Polyvinyl Acetate Emulsion, a raw material that was new to the paint trade by Mr A.E.G. Brown at our former Nicholls & Clarke factory in Bow, London. The success of Nicoloid Emulsion Paint was staggering and changed the face of interior decorating for both the public and trade.

In an attempt to diversify and make use of the new polymer emulsion, Dr Eric Leigh, a former Chemist at our factory experimented with various paste formulations. In a moment of inspiration, one of these



was used to fix a tile to a wall. It very quickly became apparent that an exciting new product had been invented as attempts to remove the tile proved difficult. It had superb adhesion in excess of 300lbs p.s.i. compared to about 5lbs

p.s.i for sand and cement. Samples were sent to tile manufacturers which resulted in exciting reports and feedback, that led to the development of the first ready mixed tile adhesive paste.

The success was unprecedented and was to be a breakthrough in tile fixing internationally. The product was to be called Nicobond Tile Cement, today known as Nicobond Tile Adhesive.



Tile fixing prior to the introduction of Nicobond Tile Cement consisted of installations using either black solvent based adhesive or sand and cement mortar, which required highly skilled operators with only cement rendered surfaces used as a suitable base. Nicobond Tile Cement was pure white, easy to use and easy to clean off with water. Furthermore, it became apparent that tiling could be carried out directly to plaster, cement, and painted surfaces and even onto old tiles. This has radically changed the tile industry, as manufacturers we were able to reduce the thickness of tiles to produce modern tiles that we still see today. Pre-soaking of tiles before fixing also became a thing of the past.

Nicobond became a success in a short space of time. Sales were being made throughout the UK, Europe and Worldwide. From these early beginnings Nicobond has continued to innovate, develop and expand. Today Nicobond offers a diverse portfolio of products and has extended manufacturing overseas with factories in Dubai and Dongguan, China to serve our Middle Eastern and Asian markets.



#### Experience

Established in 1875, Nicholls & Clarke has pedigree that has been developed over many years. Through great heritage, we have gained a depth of knowledge and invaluable experience in the manufacturing and supplying of Nicobond products to the construction market. We have experience across many industries with a huge portfolio of products suited to all project environments.

#### Inventors & Innovators

N&C Nicobond invented ready mixed tile adhesive in 1958 and continue to be at the forefront of innovation, embracing new technology within the industry and better defining our portfolio with products that perform, but where quality and functionality are at its peak. As inventors, we continue to engage in research and development and have spent more than 55 years developing innovative Nicobond products that solve the challenges faced in today's construction industry.

#### **Technical Service**

The N&C Nicobond technical team has well over 150 years of combined experience in the tile adhesive & screeding industry. We are able to offer a full technical specification service. A technical written specification is available on request.

#### **Product Quality**

All Nicobond products are tried and tested prior to being introduced into the marketplace. All Nicobond adhesives and grouts achieve classifications that meet EN Standards for the optimum product confidence and quality.

#### **Customer Care**

We aim to provide you with an outstanding level of customer service that will help to further enhance the service you offer to your clients. We monitor our performance levels and strive to achieve 100% client satisfaction. We believe that open channels of communication with our customers, coupled with their feedback are a sure way of further impoving our customers buying experience.

#### International

N&C Nicobond products are used in over 70 countries throughout the world in some of the most demanding commercial situations and climates imaginable. This worldwide experience has furthered the development of some of the latest technologies we now use in the U.K.



#### **Research & Development**

The chemists in our highly equipped laboratories are constantly engaged in research and development. Investment in the latest laboratory equipment and testing facilities allow us to push forward with the development of the next new technology or raw material that will further enhance product performance or handling characteristics. Prior to going to market, we undergo rigorous testing of all our products to ensure that performance is to a high standard. All products are tested to meet the relevant standards and regulations.

#### Trade Associations & Technical Committees

N&C Nicobond has been heavily involved in the creation of British & European Standards for decades. We have chaired The Tile Association and their Wetroom Technical Committee. We continue to push for stringent policing of the industry which would stop manufacturers falsely claiming specific European Standards on packaging. Our philosophy has always been to drive up quality and standards whilst remaining highly competitive.

#### British & Middle East Manufacturers

Our four state of the art U.K and Middle East manufacturing facilities comply with ISO 9001 and ISO 14001, utilise the latest manufacturing technologies and apply stringent quality control checks during every part of the manufacturing process. Only the highest quality raw materials, product formulations and packaging materials are used, ensuring the finished product meets our exacting standards, far exceeding those of the latest European standards.

#### Warranties

N&C Nicobond products are manufactured to such high and exacting standards enabling us to offer a life time warranty on all of our adhesives, grouting compounds and screeds.



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## A business dedicated to a sustainable future

The environment matters. N&C Nicobond are committed to a continuous programme of improvement in this important area of business. We have an environmental committee which meets regularly to assess our performance and levels of progress. We train all our people to be environmentally aware in the workplace as we can all make a difference on a daily basis.



As manufacturers and distributors, Nicholls & Clarke has made a corporate commitment to improving its environmental performance through an Environmental Policy. This will provide the framework for all of our work, whether it is in relation to energy efficiency, sustainable waste management or sustainable transport. A committee (Environmental Committee) will implement this policy by developing programmes of work that constitute an Environmental Management System.

The Environmental Committee will monitor the effectiveness of its policies and actions.

Together, we will promote the best use of environmental practice and more particularly Nicholls & Clarke will:-

- Continuously improve environmental performance
- Reduce consumption of resources
- Measure and take action to reduce the carbon footprint of business activities
- Ensure environmental criteria are taken into account in the procurement of goods and services
- Encourage staff involvement in environmental issues
- Expect similar environmental standards from all business partners
- Meet or exceed all environmental legislation that relates to the business

#### To meet these commitments Nicholls & Clarke will:-

- Set and monitor strategic objectives and targets for managing environmental performance
- Communicate internally and externally this commitment and environmental performance
- Work together with staff and business partners to promote improved environmental performance
- Review the environmental policy regularly

#### International Standards – Achieving ISO14001

With the growing demand for products to be sourced from more eco-friendly production, a high volume of carbon dioxide emissions have been considerably reduced. This is as a result of the new procedures in place to effectively tackle climate change and the negative effects on the environment, continually advocating the prudent use of natural resources. These processes have lead to the accreditation of ISO 14001, the international standard for environmental management systems (EMS). This achievement ensures that our customers are benefiting by proving the products are sourced from an ISO 14001 company.

"Through controlling our CO2 emissions, our customers benefit by sourcing their products from a responsible manufacturer. We have recognised the importance of the environment on future generations and proactively work towards reducing the environmental impact within our manufacturing processes.

Stephen Forbes, Deputy Chairman, Nicholls & Clarke.

#### Nicobond Quality Assurance

All Nicobond adhesives and grouts have been tried and tested for quality assurance and meet the relevant EN Standards Classification to give you the ultimate confidence in our products. Our products are manufactured to such high and exacting standards enabling us to offer a lifetime warranty on all our adhesives, grouting compounds and screeds.

#### Guide to Adhesives And Grouts For Tiles European Standards EN 12002/12004/13888 EN12002 Classification for cement based adhesives with a degree of flexibility or deformable characteristics categorised as Type C class S. **Product Characteristics** Category S1 Deformable adhesive S2 Highly deformable adhesive EN13888 General classification for cement based grouts Type C class G. Reaction Resin Grouts Type R class G. **Product Characteristics** Category CG1 Normal cementitious grout CG2 Improved cementitious grout with additional characteristics RG Reaction resin grout EN12004 General classification for cement based adhesives categorised as Type C. Ready mixed or paste adhesives categorised as Dispersion adhesives Type D. Epoxy resin adhesives categorised as Reaction Resin Adhesives Type R. Product Characteristics Category C1 Normal cementitious adhesive C1 F Fast-setting cementitious adhesive C1 T Normal cementitious adhesive with reduced slip C1 FT Fast-setting cementitious adhesive with reduced slip Improved cementitious adhesive with additional C2 characteristics C2 E Cementitious adhesive with extended open time C2 F Improved fast-setting cementitious adhesive with additional characteristics C2 T Improved cementitious adhesive with additional characteristics and reduced slip C2 TE cementitious Improved adhesive with additional characteristics, reduced slip and extended open time C2 FT Improved fast-setting cementitious adhesive with additional characteristics and reduced slip D1 Normal dispersion adhesive D1 T Normal dispersion adhesive with reduced slip D2 Improved dispersion adhesive with additional characteristics D2 T Improved dispersion adhesive with additional characteristics and reduced slip D2 TE Improved dispersion adhesive with additional characteristics, reduced slip and extended open time R1 Normal reaction resin adhesive **R1 T** Normal reaction resin adhesive with reduced slip Improved reaction resin adhesive with additional R2 characteristics **R2 T** Improved reaction resin adhesive with additional characteristics and reduced slip Guide to Screed Material and Floor Screeds European Standard EN 13813 EN13813 Classification for Screed material and floor screeds

	Screed Material - Properties and requirements.
Category	Product Characteristics
CT	Cementitious Screeds to EN 13892-2: 2002
С	Compressive Strength in N/mm <sup>2</sup>

- F Flexural Strength in N/mm<sup>2</sup>

#### **Our Commercial Partners**

We have worked in partnership with an extensive list of customers throughout the UK and worldwide on some of the most demanding projects imaginable. Our first UK and export project was completed 55 years ago, yet our products continue to perform today and will continue to do so for the life of the building or project.

This pedigree has created ultimate confidence in N&C Nicobond products. Today we have N&C Nicobond products specified by many recognised UK and international brands and are also working with top, premiere contractors, who in turn work in partnership with these brands.



## Nicobond CT300 Ceramic Tile Adhesive

Standard set wall and floor tile adhesive



#### Description

A thin or thick-bed, waterproof, cement based adhesive, formulated for use in hot and humid climates. For use with most types of ceramic wall and floor tiles, mosaics, marble, granite and other natural stones to: sand/cement render, blockwork, screeds and concrete. When mixed with diluted Nicobond Enhancer 2002, can be used for bonding to: glazed and painted surfaces, steel, power-floated screeds, plywood and tile backer boards.

Complies with EN 12004 and ANSI Standards



#### **Product Characteristics**

- Excellent initial grab
- Non-slip
- Water resistant
- Internal and external applications
- Tropical climate formulation
- Compatible with Under-tile heating systems
- Ultra low VOC content meets LEED requirements

Product Features Colour: White, Grey Max Bed Thickness: 10mm Coverage: 2 - 4 kg/m<sup>2</sup> Adjustment Time: 20 mins Grouting: 8 - 12 hrs Pot Life: 4 hrs Open Time: 20 mins



Application Data	
Colour	Grey & White
Mixing Ratio (water only)	Grey / white - Mixing Approx 3 - 3.5 volumes powder to 1 volume of clean water. (20kg to 5.2 litres water)
Mixing Ratio (with Nicobond Enhancer 2002)	For every 100kg of powder, mix approx 8 litres of Enhancer and 18 litres of clean water and use as the gauging liquid.
Mixing	For large quantities, use a Nicobond whisk in a slow speed electric drill and mix to a smooth consistency, use immediately.
Consistency of mix	slump resistance mortar
Maximum bed thickness	Up to 10mm
Coverage	Notched Trowel method: 2 - 2.5kg per m2. Solid bed: 3 - 4kg per m2 at 3mm thick
Pot Life	Approx 4 hours at 20°C
Open Time	Approx 20 minutes at 20°C
Adjustability Time	Approx 15- 20 minutes at 20°C
Setting time	Approx 18 - 24 hours at 20°C
Grouting After Fixing	Approx 8 - 12 hours at 30°C
Ready For Light foot Traffic	Approx 12 hours at 30°C
Installation Temperature	Minimum 5°C - 30 °C
Operating Temperature	Minimum -20°C - 100 °C
Shelf Life	12 months from date of manufacture
Packaging	20kg bag

#### Specification

The adhesive shall be Nicobond CT300 Ceramic Tile Adhesive as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

## Nicobond Floor and Wall Adhesive

Cement based standard set wall and floor tile adhesive with enhanced properties.



#### Description

A thin or thick-bed, waterproof, polymer modified, cement based adhesive. Recommended for the interior or exterior bonding of ceramic wall and floor tiles, mosaic, marble, granite and other natural stones to: sand/cement render, blockwork, screed and concrete.

When mixed with diluted Nicobond Enhancer 2002, can be used for bonding large format porcelain tiles in exterior situations and also enables bonding to: glazed and painted surfaces, steel, power floated screeds, plywood and tile backer boards.

Complies with EN 12004 and ANSI Standards



#### **Product Characteristics**

- Thick or thin bed adhesive
- Excellent initial grab
- Non-slip
- Internal and external applications
- Suitable for tiling swimming pools
- Grout after 18 24 hours
- Compatible with Under-tile heating systems
- Ultra low VOC content meets LEED requirements

Application Data	
Colour	Grey & White
Mixing Ratio (water only)	Grey / white - Mixing Approx 3 volumes powder to 1 volume of clean water.
Mixing Ratio (with Nicobond Enhancer 2002)	For every 100kg of powder, mix approx 7 litres of Enhancer and 14 litres of clean water and use as the gauging liquid.
Mixing	For large quantities, use a Nicobond whisk in a slow speed electric drill and mix to a smooth consistency, use immediately.
Consistency of mix	slump resistance mortar
Maximum bed thickness	Up to 10mm
Coverage	Notched Trowel method: 2kg per m2 Solid bed. 3-4 per m2 at 3mm
Pot Life	Approx 4 hours at 20°C
Open Times	15 - 20 minutes at 20°C
Adjustability Time	15 - 20 minutes at 20°C
Setting time	Approx 18 - 24 hours at 20°C
Grouting After Fixing	Approx 18 - 24 hours at 20°C
Ready For Light foot Traffic	Approx 18 - 24 hours at 20°C
Installation Temperature	Minimum 5°C - 30 °C
Operating Temperature	- 20°C to 100°C
Shelf Life	12 months from date of manufacture
Packaging	20kg bag

#### Specification

The adhesive shall be Nicobond Floor & wall Adhesive as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

Colour: White, Grey Max Bed Thickness: 10mm Coverage: 2 - 4kg/m<sup>2</sup> Adjust Time: 15 - 20 mins Grouting: 18 - 24 hrs Pot Life: 4 hrs Open Time: 15 - 20 mins

**Product Features** 



## Nicobond Single Part Flexible Adhesive

Highly polymer modified flexible standard set wall and floor tile adhesive



#### Description

A single part, polymer enhanced, cement based waterproof and flexible adhesive for fixing wall and floor tiles, porcelain, mosaic, glass and natural stones. A standard setting adhesive with extended open time, high initial grab and resilient bond. Can be used in areas where slight vibration occurs. Nicobond Single Part Flexible Adhesive will bond to most substrates.

#### Complies with EN 12004 and ANSI Standards





Heating

#### **Product Characteristics**

- Used to fix Porcelain, Marble and Stone
- Flexible Adhesive to S1 Standard
- Excellent initial grab
- Non-slip
- Internal and external applications
- Suitable for tiling swimming pools
- Compatible with Under-tile heating
- Ultra low VOC content meets LEED requirements

#### **Product Features**

Colour: White, Grey Max Bed Thickness: 12mm Coverage: 2 - 4kg/m<sup>2</sup> Adjust Time: 15 - 20 mins Grouting: 12 - 24 hrs Pot Life: 5 hrs Open Time: 10 - 20 mins



Application Data	
Colour	White, Grey
Mixing Ratio (water only)	Mixing Ratio (water only) Approx 2.5 Vol powder to 1 Vol Clean water. (Approx 20kg to 5.2 litres water). Allow to stand for 5 minutes, re-mix and use immediately
Mixing	For large quantities, use a Nicobond whisk in a slow speed electric drill and mix to a smooth consistency, use immediately.
Consistency of mix	slump resistance mortar
Maximum bed thickness	Up to 12 mm (6mm Max for Glass Tiles)
Coverage	Notched trowel method 2kg per m <sup>2</sup> at 3mm thickness. Solid bed 3.5 - 4kg per m <sup>2</sup> at 3mm thickness.
Pot Life	> 1hour at 35°C
Open Times	Approx 30 minutes at 20°C
Adjustability Time	15 - 20 minutes at 20°C
Setting time	Approx 12 - 18 hours at 20°C
Grouting After Fixing	Approx 12 - 18 hours at 20°C
Ready For Light foot Traffic	Approx 18 - 24 hours at 20°C
Installation Temperature	Minimum 5°C - 35 °C
Operating Temperature	- 20°C to 100°C
Shelf Life	12 months from date of manufacture
Packaging	20kg bag

#### Specification

The adhesive shall be Nicobond Single Part Flexible Adhesive as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

## Nicobond Waterproof Adhesive (NWA) 2T

Polymer modified, cement based waterproof wall and floor tile adhesive for swimming pools.



#### Description

Nicobond Waterproof Adhesive (NWA) 2T is a thin-bed, waterproof, cement based adhesive. For the interior or exterior bonding of ceramic wall and floor tiles, marble, slip bricks and mosaics to: Sand/Cement rendering, brick, blockwork, screeds and concrete in swimming pools, fountains and other water features.

Complies with EN 12004 and ANSI Standards



Application Data

Mixing Ratio (water only)

Colour



White

Mixing Approx 2 -21/2 volumes powder

to 1 volume of clean water.

#### **Product Characteristics**

- Suitable for tiling swimming pools
- Long adjustability time
- White colour will not discolour tiles
- Thin bed adhesive
- Excellent initial grab
- Non-slip
- Grout after 18 24 hours
- Ultra low VOC content meets LEED requirements

	(Approx 3kg – 1 litre)
Mixing Ratio (with Nicobond Enhancer 2002)	For every 100kg of powder, mix ap- prox17 litres of Enhancer and 17 litres of clean water and use as the gaug- ing liquid.
Mixing	For large quantities, use a Nicobond whisk in a slow speed electric drill and mix to a smooth consistency, use immediately.
Consistency of mix	slump resistance mortar
Maximum bed thickness	Up to 6 mm
Coverage	Notched Trowel method: 2-21⁄2 kg per m2. Solid bed 3-4 per m2 at 3mm
Pot Life	Approx 6 hours at 20°C
Open Times	15 – 20 minutes at 20°C
Adjustability Time	Approx 45 minutes at 20°C
Setting time	Approx 12 - 18 hours at 20°C
Grouting After Fixing	Approx 12 - 18 hours at 20°C
Ready For Light foot Traffic	Approx 18 - 24 hours at 20°C
Installation Temperature	Minimum 5°C - 30 °C
Operating Temperature	- 20°C to 100°C
Shelf Life	12 months from date of manufacture

**Product Features** Colour: White Max Bed Thickness: 6mm Coverage: 2 - 4kg/m<sup>2</sup> Adjust Time: 45 mins Grouting: 12 - 18 hrs Pot Life: 6 hrs Open Time: 15 - 20 mins



#### Specification

Packaging

The adhesive shall be Nicobond Waterproof Adhesive (NWA) 2T as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

20kg bag

## **Nicobond Tilers Grout**

Nicobond Tilers Grout is a polymer modified cement based grouting compound and is suitable for grouting ceramics, porcelain, mosaics, marble and other natural stones.



#### Description

Nicobond Tilers Grout is available as a narrow joint grout offering a fine finish and a wide joint grout which produces a slightly coarser finish. Tilers Grout is weather resistant and has excellent bonding capabilities to glazed or porous edges of tiles or mosaics. Once hardened it is unaffected by water and can be used for internal and external tiling in dry and wet conditions, including swimming pools with non-aggressive water conditions. It is available in brilliant white, grey and a range of colours.

Tilers Grout can be used with the addition of Nicobond Enhancer 2002 mortar admix to produce tile joints with improved adhesion, flexibility, elasticity and water repellence.

Complies with EN 13888 and ANSI Standards



#### **Product Characteristics**

- Available in a range of colours
- Suitable for narrow and wide joint applications
- Easy to apply and clean off
- For use on walls and floors
- Excellent adhesion to the porous or glazed edges of tiles
- For internal and external applications
- Suitable for swimming pools
- Ultra low VOC content meets LEED requirements

#### **Product Features**

Colour: See page 14 Narrow Joint : up to 4mm Wide Joint: up to 15mm Coverage: See page 29 Pot Life: Approx 60 mins Setting Time: 18 - 24 hrs Ready for Use: Approx 24hrs



#### Application Data

Mixing Ratio (Water only) Narrow Joint Grout	Approx 6 – 6.5 litres per 20kg bag of powder. Approx 100 : 30 – 32%
Mixing Ratio (Water only) Wide Joint Grout	Approx 3.5 litres per 20kg bag of powder. Approx 100 : 20%
Mixing Ratio with Nicobond Enhancer 2002 Narrow Joint Grout	For every 20g of powder mix 2 litres of Enhancer 2002 with approx 5.5 litres of water and use as the gauging liquid
Mixing Ratio with Nicobond Enhancer 2002 Wide Joint Grout	For every 20g of powder mix 2 litres of Enhancer 2002 with approx 2.5 litres of water and use as the gauging liquid.
Colours:	See page 14
Consistency of mix	Smooth paste
Pot Life:	1 hour at 20°C.
Surface drying Time:	10 - 20 minutes dependent on temperature.
Joint Width:	Narrow Joint : Up to 4mm. Wide Joint : Up to 15mm.
Grout MF Factor	1.7 for Grey and 2 for white
Installation Temperature	Minimum 5°C to 35°C
Operating Temperature	- 20°C to 100°C
Shelf Life	12 months from date of manufacture
Packaging	20kg and 10kg sacks

#### Specification

The grout shall be Nicobond Tilers Grout as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

## **Nicobond Flexible Grout**

A superior, highly flexible cement based grout with good resistance to efflorescence, anti mould and unique Aquablok technology water repellent properties. Suitable for glass, ceramic, porcelain, mosaic, guarry and natural stone tiles.



#### Description

Undertile Heating

Nicobond Flexible Grout is formulated in two versions as a narrow joint grout giving a smooth surface and a wide joint grout which produces a lightly textured finish. It is easy to clean with excellent adhesion to the edges of tiles or mosaics. Nicobond Flexible Grout can be used for internal and external tiling in dry and wet conditions, including swimming pools . It is available in brilliant white, grey and a range of colours.

Flexible Grout can be used with the addition of Nicobond Enhancer 2002 mortar admix to produce tile joints with improved adhesion, flexibility, elasticity and water repellence.

Complies with EN 13888 and ANSI Standards



Application Data Mixing Ratio (Water only)

Narrow Joint Grout

#### Product Characteristics

- Available in a range of colours, seechart
- Waterproof
- Easy to clean
- For use on walls and floors
- Internal and external use
- Suitable for swimming pools
- Non shrink
- Ultra low VOC content meets LEED requirements

#### **Product Features**

Colour: See page 14 Narrow Joint : up to 4mm Wide Joint: up to 15mm Coverage: see page 29 Pot Life: Approx 60 mins Setting Time: 18 - 24 hrs Ready for Use: Approx 24hrs



	Approx 100 : 30 – 32%
Mixing Ratio (Water only) Wide Joint Grout	Approx 3.5 litres per 20kg bag of powder. Approx 100 : 20%
Mixing Ratio with Nicobond Enhancer 2002 Narrow Joint Grout	For every 20g of powder mix 2 litr of Enhancer 2002 with approx 5.5 litres of water and use as the gauging liquid
Mixing Ratio with Nicobond Enhancer 2002 Wide Joint Grout	For every 20g of powder mix 2 litr of Enhancer 2002 with approx 2.5 litres of water and use as the gauging liquid.
Colours:	See page 14
Consistency of mix	Smooth paste
Pot Life	Approx 1 hour at 20°C
Surface drying Time:	10 - 20 minutes dependent on temperature.
Set Time:	18 – 24 hours dependent on temperature.
Joint Width:	Narrow Joint : Up to 4mm. Wide Joint : Up to 15mm.
Grout MF Factor	1.7 for Grey and 2 for white
Installation Temperature	Minimum 5°C - 35°C
Operating Temperature	- 20°C to 100°C
Shelf Life	12 months from date of manufactor
Packaging	20kg and 10kg sacks

Approx 6 – 6.5 litres per

2 litres

2 litres

ufacture

20kg bag of powder

#### Specification

The grout shall be Nicobond Flexible Grout as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions

## **Nicobond Colour Grout Selector**

A palette of 20 colours combining harmonious neutral colours and earthy tones. All colours available in Nicobond Tilers Grout, Nicobond Flexible Grout and Nicobond Epoxy Resin Grout. Suitable for ceramics, porcelain, mosaics, marble and natural stone.

White - 4010	Flint - 5080
	0
Grey - 4020	Sienna - 5090
Cream - 5010	Mink - 5100
Limestone - 5020	Spruce - 5110
Beige - 5030	Tannin - 6020
5	
Apricot - 5040	Burgundy - 6030
Magnolia - 5050	Charcoal - 6040
Dune - 5055	Black - 6050
Blush - 5060	Hydrangea - 7020

Silver Grey - 5070

Marine - 7030



## Nicobond Epoxy Resin Grout A three part, solvent free, epoxy resin-based grouting compound.



#### Description

Nicobond Epoxy Resin Grout is suitable for use in commercial and industrial applications such as commercial kitchens and food preparation areas where a chemical resistant or a totally impervious joint finish is required. It can be used with ceramic and porcelain tiles, quarry tiles, marble, natural stone and mosaics and is also suitable for swimming pools.

Complies with EN 13888 and ANSI Standards



Chemical

Res stant

Water

Resistant



Stain

Resistant



Food Preperation

#### **Product Characteristics**

- Solvent free
- Excellent chemical resistance
- Resistance to bacteria
- 3 pre-measured components
- Easy mixing
- Waterproof
- Heavy duty
- Water cleanable

### **Product Features**

Colour: See page 14 Max Joint Width: 12mm Coverage: See page 29 Grouting: 8 - 12 hrs Pot Life: Approx 1 hr

Application Data	
Colour	See page 14
Mixing	Mix Part A + B together to form a consistent mix, add part C, mixing continuously until a uniform colour and consistency is achieved. The amount of part C can be adjusted to suit the rheologoy required.
Consistency of mix	Firm Paste
Joint Width	Up to 10mm
Coverage	See page 29
Pot Life	1 hour at 20°C
Hardening Time	8 hours at 25°C depending on substrate
Ready for service	Full cure after 7 days at 25°C. Higher temperatures will reduce initial set and curing times.
Installation Temperature	Minimum 5°C - 35 °C
Serviceable Temperature	Intermittent: Up to 120 °C Continuous: Up to 60 °C
Compressive Strength at 28 days	80N/mm <sup>2</sup>
Tensile Strength at 28 days	16N/mm <sup>2</sup>
Flexural Strength at 28 days	28N/mm <sup>2</sup>
Shelf Life	12 months from date of manufacture
Packaging	8kg kit

Specification

The grout shall be Nicobond Epoxy Resin Grout as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.



## Nicobond Enhancer 2002

A highly modified acrylic resin emulsion for improving the properties of Nicobond cementitious adhesives and grouts in demanding conditions.



#### Description

The use of this additive enables the bonding of large ceramic or porcelain tiles and similar materials to external facades or other demanding situations and environments. Nicobond Enhancer 2002 imparts a higher degree of flexibility to the adhesive which makes it ideal in areas where temperatures fluctuate regularly or where vibration occurs. The use of an Acrylic emulsion also improves resistance to abrasion, weathering, aggressive atmospheres and attack by water borne chemicals in swimming pools.

Complies with EN 12004 and ANSI Standards when mixed with adhesive.



#### **Product Characteristics**

- Promotes adhesion
- Increases cohesive strength
- Creates a deformable adhesive
- Water based
- Non-flammable
- Reduces water permeability
- Reduces efflorescence
- Ultra low VOC content meets LEED requirements

Application Data	
Colour	White
Mixing	Shake the container well before use. Always blend the additive with water in the recommended proportions be- fore adding the powder component.
Mixing Ratio	Refer to the relevant adhesive or grout data.
Walk on time @ 20°C	Refer to the relevant adhesive or grout data.
Installation Temperature	Minimum 5°C
Shelf Life	12 months from date of manufacture.
Packaging	200ltr Drum, 20ltr JC

#### Specification

The additive shall be Nicobond Enhancer 2002 as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

Product Features Colour: White



## Nicobond PVA Bonding Agent Sealer

A high quality PVA bonding agent, multipurpose, can be used as an adhesive for various materials including wood, leather and paper or as a simple additive to sand: cement mortars and render.



#### Description

For priming plywood, timber and similar internal surfaces prior to fixing ceramic tiling. Bonding agent prior to plastering and sand/cement rendering. Additive to upgrade interior sand/cement mixes. Sealer for porous surfaces. Prevents concrete floors dusting. General purpose woodworking and household adhesive.

Complies with BS Standards.



#### **Product Characteristics**

- Excellent aid to bonding
- Seals porous surfaces
- Non-staining
- Non-flammable
- Easy to use and apply
- Dries clear
- Ultra low VOC content

Application Data		
Colour	White	
Mixing Ratio	Shake the container well before use . Refer to the product data sheet for mixing ratio.	
Mixing Ratio	Refer to the product data sheet.	
Coverage		
Neat/Undiluted Diluted 1 : 1 Diluted 1 : 4	6-10 m² per Kg 15 – 25 m² per Kg 25 – 50 m² per Kg	
Drying time @ 20°C	When touch dry. Approx 1 hour	
Installation Temperature	Minimum 5°C	
Shelf Life	12 months from date of manufacture	
Packaging	200Kg Drum, 20Kg JC	

#### Specification

The additive shall be Nicobond PVA Bonding Agent & Sealer as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

#### **Product Features**

Improves adhesion

Bonds new concrete to old

Use in slurry coat

Prime plaster surfaces

Exceeds requirements of British Standards 5270; 1976 for PVA bonding agents



## **Nicobond Primer**

An acrylic dispersion specially formulated to improve adhesion, control suction of absorbent surfaces and inhibit penetration of water in intermittently damp locations.



#### Description

Nicobond Primer is used as a pore sealer on floor surfaces to prevent air bubbles rising through subsequently applied sub - floor smoothing compounds and to prolong their flow life and workability. Ideal for priming cement: sand renders, screeds and concrete surfaces prior to the application of Nicobond ceramic tile adhesives.



#### Product Characteristics

- Improves flow and workability
- Superior bonding agent
- Interior and exterior use
- Water-based
- Non flammable
- Dries almost transparent
- Will not stain
- Reduces surface porosity
- Ultra low VOC content meets LEED requirements

Application Data		
Colour	White	
Mixing	Blend 1 volume of Primer with 4 volumes of cold potable wate	
Key Coat:	Blend 1 volume of Primer, 1 volume of water and 1 volume of cement material.	
Coverage: Neat/undiluted Primer Key Coat	4 -5 m² per lit 15 - 30m² per lit 2 - 3m² per lit	
Walk on time at 20 °C	Touch dry and not transferred to shoes.	
Installation Temperature	Minimum 5°C	
Shelf Life	12 months from date of manufacture	
Packaging	20 Lit JC	

#### Specification

The primer shall be Nicobond Primer as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

Product Features Effective Primer Effective Sealer Compatible with cement based coverings

Non toxic



## Nicobond Render Improver

A blend of SBR and other polymer emulsions for improving the bond of key-coats and cohesive and tensile strength of sand: cement mortars ,renders and screed.



#### Description

Nicobond Render Improver is a multi functional product. It can be diluted with water as a simple primer, blended with cement to form a slurry coat or added to sand and cement as a spatterdash coat. It can also be used as an additive to significantly improve the working characteristics and set properties of mortars, plaster coats and concrete in interior or exterior situations.



#### **Product Characteristics**

- Superior bonding agent
- Admixture for waterproof mortar
- Interior and exterior use
- Increases abrasion and chemical resistance of cement screeds
- Aids workability
- Water-based
- Ultra low VOC content meets LEED requirements

#### **Product Features**

Superb adhesion to concrete and other substrates

- Effective Sealer and primer
- Increases tensile and flexural strength
- Increases compressive strength
- Reduces water demand
- Reduces shrinkage
- Excellent resistance to water penetration



Application Data		
Colour	White	
Mixing : Primer:	Blend 1 volume of NRI with 4 volumes of cold potable water.	
Key Coat:	Blend 1 volume of NRI with 5 volumes of oPC to form a creamy slurry coat, additional water maybe added if re- quired.	
Render Coat :	Using a pan/forced action type mixer blend in the required sand and cement and then add 10 litres of NRI per 50kg oPC and water to suit.	
Coverage: Primer Diluted 1: 4 Key Coat	15 - 30m² per lit 2 - 3m² per lit	
Bed Thickness Key coat:	2mm, additional coats may be applied after 1st is "touch dry".	
Render coat:	6 - 8mm, additional coats may be applied within approx 20 - 30 minutes.	
Repair Mortar / Screed	6 - 60mm thickness.	
Compressive Strength* :	36N/mm <sup>2</sup> at 28 days	
Tensile Strength*:	5.5N/mm <sup>2</sup> at 28 days	
Flexural Strength*:	12N/mm <sup>2</sup> at 28 days	
Installation Temperature:	Minimum 5°C	
Shelf Life	12 months from date of manufacture	
Packaging	200 Lit Drum, 20 Lit JC	

\*Compressive, Tensile and Flexural strengths are based on a typical render mix of 50kg oPC, 150kg clean sharp graded sand, 10 litres of NRI and approx 6 litres of water.

#### Specification

The admixture shall be Nicobond Render Improver as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

## Nicobond Self Levelling Underlayment

A fast setting high strength underlayment designed for smoothing sand/cement screed or concrete.



#### Description

A technically advanced polymer modified cement based underlayment designed for smoothing sand: cement screed or concrete floors, including smoothing tamped, uneven, damaged or rained-on in situ concrete sub-floors, provides a perfect finish to lay vinyls, carpet or ceramic tiles. For surfacing most types of interior cementitious subfloors prior to laying decorative floorcoverings.

Complies with BS EN 13813 and BS EN 13892-2



#### **Product Characteristics**

- Self levelling
- Self smoothing
- Self curing
- Cures very hard
- Add water only
- Suits Middle East climate
- VOC free

Product Features Colour: Grey Max Thickness: 6mm Coverage: 5.6 – 6.4kg/m<sup>2</sup> at 2mm Pot Life: Approx 30 mins Walk on Time: Approx 8 hours CT – C30 – F10



Application Data		
Mixing Ratio:	Into a clean bucket, pour 1 vol. of clean water and stir into it approx. 3½ vols. of Nicobond Underlayment (20kg of powder to approximately 4.5 litres of chilled cold water).	
Consistency of mix:	Smooth creamy lump free consistency	
Application Thickness:	Feather edge up to 6mm	
Working Time:	20 – 30 Minutes @ 20°C	
Walk on hardness time:	Approx 8 hours @ 20°C	
At 3mm thickness ready to receive floorcoverings:	Fixing ceramics Approx 8 -12 hours @ 20°C	
Coverage	Approx 5.6m <sup>2</sup> at 2mm thickness	
Tensile Adhesion Strength 28 days standard conditions	1.5 N/mm² (Approx)	
Compressive Strength 28 days standard conditions	30.0 N/mm² (Approx)	
Flexural Strength 28 days standard conditions	10.0 N/mm² (Approx)	
Flow Life at 23°	12.5mm at 15 minutes.	
Installation Temperature:	Minimum 5°C	
Shelf Life	12 months from date of manufacture	
Packaging	20kg bag	

#### Specification

The compound shall be Nicobond Self Levelling Underlayment as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

## Nicobond Waterproofing Membrane

An aqueous polymer emulsion based liquid applied membrane for water and vapour proofing applications.



#### Description

A quick drying, flexible waterproofing membrane for use in bathrooms, wet rooms and showers. Use with Nicobond Wet Room Waterproofing tapes to create a wetfloor tanking system, prior to laying ceramic tiles, mosaics and natural stones. Use to protect moisture-sensitive backgrounds including gypsum plaster, plasterboard, sand:cement substrates. Self adhesive waterproof tape, interior and exterior corners and pipe collars are available for the complete tanking of wet rooms and shower areas.

Complies with ASTM Standards



#### **Product Characteristics**

- Waterproof
- Cold applied
- Can be applied to damp backgrounds
- Excellent adhesion to concrete, cement blocks and wood
- Fast drying
- Interior and exterior use
- Resistant to chlorides and sulphates
- Non flammable
- Ultra low VOC content meets LEED requirements

#### **Product Features**

Single component Excellent crack bridging properties Brush, roller or squeegee application Easy to use Highly flexible Non toxic



Application Data	
Colour	Brown/Black
Bed Thickness:	Approx 1mm per coat
Coverage:	At minimum film thickness, 1kg per m <sup>2</sup> . Apply 2 coats at right angles to each other, allow first coat to dry before application of second coat.
Softening Point (ASTM D36 -84)	> 100°C
Elongation at break (ASTM D412)	Approx 700%
Water Vapour Permeability (ASTM E96 -92)	0.15g/m²/day
Resistance to water (ASTM D2939)	No blistering or re-emulsification
Drying Time	Depends on application method and thickness. Typically 2 hours after the application of the second coat
Installation Temperature	Minimum 5°C
Service Temperature	-20° to +110°
Shelf Life	12 months from date of manufacture

#### Specification

Packaging

The membrane shall be Nicobond Waterproofing Membrane as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions

18kg Pail and 200kg drum

## Nicobond Plaster Bond Coat

A single part cement based mortar for bonding new cement render or plaster to existing concrete substrates.



#### Description

Designed as a key coat bonding aid, Nicobond Plaster Bond Coat is a durable, polymer modified cementitious blend which provides excellent adhesion to concrete, ensuring the secure fixing and increased longevity to cement : sand renders or plasters. This material is applied using Tyrolean Flicker or Splatter type box to evenly distirubute a layer of spatterdash on the surface, this rough finish provides an effective mechanical key to prevent the render coat sliding or sagging. This method negates the need to hack the concrete thereby offering savings in time and labour. Do not apply by brush. Use our alternative formulation for Microsilca concrete backgrounds.

Complies with BS 6319



#### **Product Characteristics**

- Excellent adhesion
- Improves longevity of render
- No need to hack surface
- Rough spatterdash finish
- Interior and exterior use
- Add water only
- Ultra low VOC content

## **Product Features** Effective Key Coat Easy to apply Time saving Labour saving Compatible with GGBS\*\* concretes Use on smooth concrete

Use over concrete blocks AAC\*\*, clay or concrete



Application Data		
Colour	Grey	
Mixing	Add 25 kg of powder to 6.5 - 7.5 litres of cold water. Best results are obtained using a slow speed mixing paddle in a large bucket. Allow approx 3 minutes mixing time. Increase volume of water to produce a more fluid mix suitable for spraying machines.	
Bed Thickness:	Approx 3mm	
Pot Life:	Approx 30 – 45 minutes at 30°C	
Curing :	Allow the bond coat to dry completely, once the surface is dry, aid curing by mist spraying surface at regular intervals, particularly in hot and windy conditions for at least 2 days.	
Coverage:	Approx 8m <sup>2</sup> per bag at 2mm thickness	
Yield:	Approx 16 Litres per Kg.	
Compressive Strength:	Approx 25 N/mm <sup>2</sup>	
Flexural Strength:	Approx 5 N/mm <sup>2</sup>	
VOC Content:	<10g/kg	
Installation Temperature	Minimum 5°C	
Shelf Life	12 months from date of manufacture	
Packaging	25kg, 50kg	

The Bond coat shall be Nicobond Plaster Bond Coat as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.

\*Ground granulated blast-furnace slag (used in binder in concrete \*\*Autoclaved aerated concrete

## Nicobond Crack Filler and Repair Mortar

A versatile fast setting waterproof crack filler and repair mortar for use on concrete and masonry surfaces in interior and exterior situations.



#### Description

A polymer modified cement based mortar specifically designed the effective patching and repair of concrete floors and walls, precast concrete panels, general masonry and stucco. Nicobond Crack Filler and Repair Mortar can be applied by trowel or brush to smooth out or create a texture to wall or floor surfaces.

Complies with ASTM C348/9/109



#### **Product Characteristics**

- Interior/ exterior use
- Fast setting
- Excellent adhesion
- Repair surface defects
- Waterproof
- Non shrink
- Very low VOC

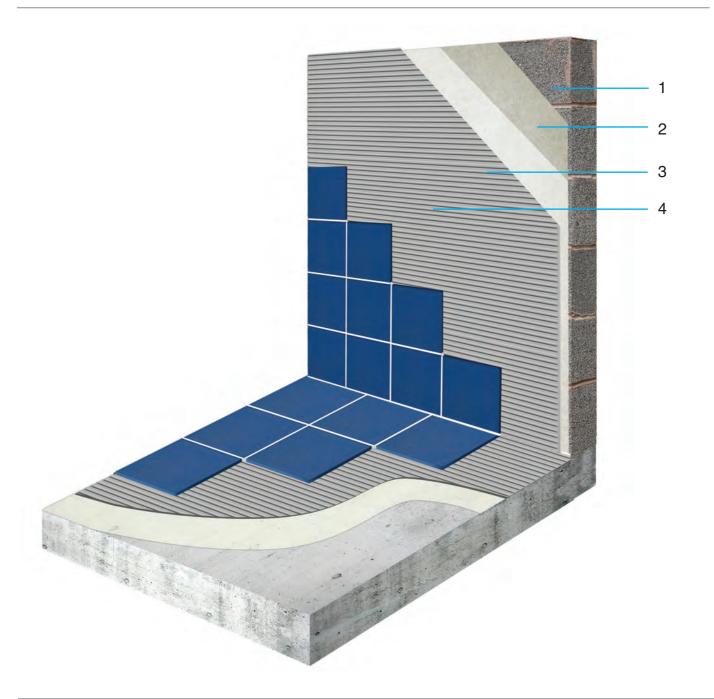
Product Features Colour: White, Grey Max Thickness: 10mm Coverage: 2m<sup>2</sup> at 6mm Yield: Approx 12 Litres/ 25kg bag Pot Life: Approx 1 hour at 30°C Setting Time: 2 hours



Application Data		
Mixing Ratio:	If mixing a full bag of material to achieve a trowelable finish add 25 k of powder to 8.5 - 9 litres of cold water. Best results are obtained usin a slow speed mixing paddle in a larg bucket. Increase volume of water by 1 - 2 litres to obtain a brushable consistency.	
Consistency of mix:	Smooth creamy lump free consistency.	
Application Thickness:	Feather edge up to 10mm	
Working Time:	Approx 1 hour @ 30°C	
Walk on hardness time:	Approx 2 hours @ 30°C	
Finishing Coat:	Painting : Approx 24 hours @ 30°C	
Coverage (25kg bag)	Approx 2m <sup>2</sup> per bag at 2mm thickness.	
Yield (25kg bag)	Approx 12 Litres per bag	
Compressive Strength 28 days standard conditions	30.0 N/mm² (Approx)	
Flexural Strength 28 days standard conditions	5.0 N/mm² (Approx)	
Installation Temperature:	Minimum 5°C	
Shelf Life	.12 months from date of manufacture	
Packaging	20kg White , 25kg Grey bag.	

#### Specification

The compound shall be Nicobond Crack filler and Repair Mortar as manufactured by N&C Building Products Limited, Jebel Ali Industrial Estate, Dubai, United Arab Emirates and shall be applied strictly in accordance with the Manufacturer's current data sheets and instructions.



- 1. Ensure sand:cement render or gypsum plastered walls, screed or concrete surfaces are all fully cured, flat, clean.
- 2. If surfaces are porous prime with Nicobond Primer.
- 3. Press the tiles into the recommended adhesive with a slight sliding/twisting action. Large format tiles should be back buttered.
- 4. Fill joints between tiles using the recommended grout.
- \* Allow at least 6 weeks for structural concrete floors to cure and a further 3 weeks for subsequently applied screed.
- Cement:Sand render should be left for 2 weeks before tiling is applied.
  In projects of a more industrial nature where the tile installation requires a high degree of chemical resistance then the use of epoxy as the adhesive is also recommended.

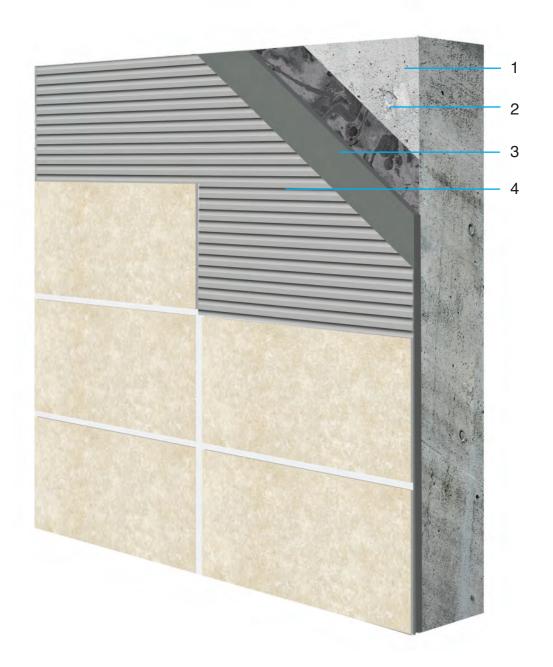
#### Recommended Products







Nicobond Nicobond CT300 Ceramic Floor and Wall Tile Adhesive Adhesive Nicobond Tilers Grout Nicobond Primer



- 1. Ensure the concrete substrate is fully cured, clean and free from any contaminants which may prevent adhesion.
- 2. Apply a thin layer of Nicobond Plaster Bond Coat to the concrete surface. This should be applied using a tyrolean or spray hopper type machine to achieve a spatterdash finish. Once dried cure regularly with water spray for a period of at least 2 days.\*
- To improve the performance of the render add Nicobond Render Improver in the ratio of 10 Litres of Render Improver to 50kg of oPC and water to suit.\*\*
- 4. Press the tiles into the recommended adhesive with a slight sliding or twisting action. Large format tiles should be back buttered to ensure solid bedding is achieved.
- 5. Fill joints between tiles using the recommended grout. In hot and dry conditions, the joints should be mist sprayed with potable water to prevent rapid drying of the grout.

#### \*Do not trowel apply as this will produce a flat finish and not a rough finish as desired \*\*Allow at least 2 weeks for sand : cement render to cure before commencing tiling.

#### **Recommended Products**



Flexible Adhesive

Nicobond

Floor and Wall

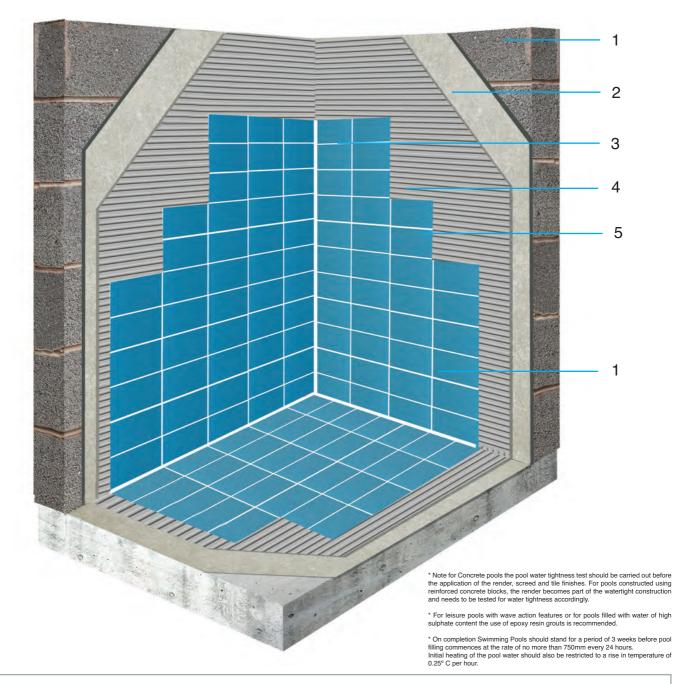
Adhesive



Plaster Bond

Coat





- Pool construction can take various forms but in all cases ensure for example that any release oils or curing agents have been removed from concrete substrates and that waterproofed sand:cement render and screed is fully cured, flat and clean.
- 2. If rendering onto concrete or blockwork the surface should be slurry primed with a bond coat of 1 part water:1 part Nicobond Primer:1 part Opc. The render will typically be 1:3 or 1:4 cement:sand and up to a maximum total thickness of 20mm. Integral waterproofing additives to be added in accordance with the manufacturer's instructions.
- The layout of tiling must take into account stress relieving joints which must be carried through the tiling, render/screed and be provided in accordance with the specification and in line with all day work joints in the concrete.
- 4. Press the tiles into the recommended adhesive with a slight sliding or twisting action. Tiles with deep grooves on the reverse should be back buttered to ensure solid bedding is achieved.
- Fill joints between tiles using the recommended grout allowing 3 days after fixing before grouting. Note a further 3 days should elapse before applying sealants to joints.

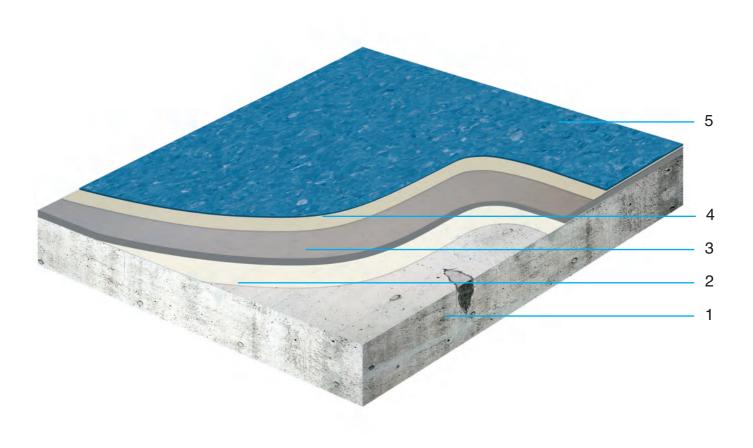
#### **Recommended Products**

Adhesive 2T



Flexible Adhesive

\*Allow at least 6 weeks for structural concrete floors to cure and further 3 weeks for subsequently applied screed or render. \* Refer to the TTA publication "Design and Construction Process for Swimming Pools" for further advice and information.



- 1. Ensure the concrete base or cement screed has fully cured and is clean, sound and dry.
- 2. A damaged floor may be made good using Crack Filler & Repair Mortar.
- 3. If the sub-floor is porous, prime with diluted Nicobond Primer in the ratio of 4 volumes of water to 1 volume of Nicobond Primer and allow to dry.
- 4. Apply the selected underlayment according to the instructions.
- 5. Install floor covering using the appropriate flooring or tile adhesive.



Suspended floor or direct to ground base must have an effective damp proof membrane installed. It is essential to measure the moisture content of the sub-floor using the appropriate moisture testing equipment. If the sub-floor is dense concrete, prime using neat Nicobond Primer and allow to dry.

The recommendations in this publication and on our website www.ncnicobond.com are made in good faith for the guidance of specifiers and users. Clarification of any system employed must be sought from the local distributor or Technical Team before commencing work. Our company pursues a policy of continuous research and development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, since conditions of use and workmanship are outside our control, the advice is given without responsibility on our part. Please always ensure you are working from the current copy of our directory.

Any colour representations in this publication are as near to actual as the printing process will allow. Colours should always be selected from an actual sample prior to use. The same colour name may appear in several product groups, particularly with grouting compounds. Due to the varying nature of the groups this should not be construed as meaning the colour will provide an exact match. All colours should be checked for suitability prior to the commencement of work.

Always use clean mixing equipment and tools, which should be washed in water immediately after use. Residual adhesive or grout must be washed from the face of tiles before it sets, particularly in situations where Nicobond Enhancer 2002 or epoxy products have been used.

When mixing cement based adhesives, grouting compounds and screeds the powder must always be added to the liquid. In the majority of instances on site a quicker, smoother mix will be achieved by using a Nicobond mixing whisk in a slow speed electric drill to blend the powder/liquid elements. It is also particularly appropriate when adding Nicobond Granite Chippings into a previously blended Nicobond screeding compound.

When blending screeding compounds in small quantities, any buckets used must always be thoroughly cleaned between each application. Residual quantities of material may speed up the setting time of subsequent blends.

Coverage figures quoted do not include wastage and are dependent upon the condition of surface and type of tile.

All quoted setting times are given in good faith and established in a controlled laboratory environment at 20°C and 50% relative humidity. This is to ensure consistent results; however adverse weather or site conditions may extend or shorten these times. When fixing porcelain or fully vitrified tiles quoted setting times will be extended except for our epoxy based materials.

Nicobond adhesives and grouts used for tiling are not designed to form, in themselves, a water impermeable membrane.

Consideration must also be given to placement of movement and expansion joints. Since selecting the type and location of joints involves consideration of construction materials, bedding systems, anticipated temperature and humidity conditions, areas concerned and setting out of the tiling, it is the responsibility of the designer to incorporate joint details at the design stage. BS 5385 refers.

Nicobond Silicone Sealant should always be used to seal between surfaces subject to any differential movement such as where tiles abut or between tiled wall & shower tray, also for filling expansion joints in vertical surfaces.

A diverse range of substrates is now presented to the specifier or fixer when considering ceramic wall and floor tiling and similar cladding materials, or the application of screed and rendering.

Tile backer boards are becoming increasingly popular and all such proprietary products or similar substrates must be suitable for the intended purpose and have been fixed strictly in accordance with the manufacturers instructions. To avoid failure which may follow from the debonding of any original adhesive, it is recommended that any residual quantities be removed to expose approximately 80%, evenly distributed, of the original surface.

Whatever the surface involved it must be fully cured, dimensionally stable, clean, dry, and free from dust, laitance or any other contamination which will reduce adhesion.

Good adhesion to the sub-floor is very important to guarantee the successful application of any thin screed or underlayment. Direct to earth sub-floors must have an effective DPM (seek technical advice). All Nicobond products should be mixed and applied in accordance with the relevant and most current product data sheet.

Nicobond products should not be used to make good screeds or any other substrates that are either structurally weak or have a friable surface.

Do not add additional water to the single part water based products as this will reduce the final performance of the cementitious underlayments.

Do not apply any Nicobond screed product below 5°c or above 25°c; the temperature of the substrate must be carefully considered and included in your temperature calculations before using any cementitious screed product.

Concrete curing agents, admixtures and surface hardeners and the residues of these products can impair adhesion. Where doubt exists or the compatibility is unknown a trial adhesion test should be carried out before the work commences. All surfaces must be clean, sound and free from dust, plaster droppings, bitumen, grease, paint, polish and any water softenable or loosely adhered materials.

Gypsum and anhydrite based screeds also require careful consideration in respect of moisture content, surface finish and chemical compatibility. The screed should be tested for moisture according to BS8203:2001+A1:2009. The recommended methods are Hair/Electronic Hygrometer - The test is non destructive and provides reliable results for a relative humidity of 75%. Carbide Bomb–Destructive but gives a direct measurement of moisture content. Oven Drying - Time consuming but also gives a direct measurement. Note - Electronic metres are not suitable for accurate determination of the moisture content of calcium sulphate screeds.

It is the installers responsibility to take all necessary precautions in terms of taking moisture readings to satisfy themselves that the floor is adequately dry prior to applying Nicobond flooring products. These screeds are commonly applied by pump which leaves a laitance on the surface and it is the flooring contractors responsibility to return after 2 or 3 days to sand this off.

These screeds contain Calcium Sulphate which can be problematical if they come into contact with cement (screed or adhesive) in the presence of moisture. Under these circumstances a chemical reaction can take place. It is necessary to create a barrier utilising a priming system or disconnecting mat (unless Nicobond Gypfix is used for tile fixing) to prevent the formation of Ettringite, an expansive crystalline product which can lead to delamination of the screed or tile bed. British Standards stipulate minimum periods for the drying or curing of certain 'wet trade' backgrounds. Typical substrates and the relevant information are shown below. More comprehensive data will be found elsewhere in this publication and by reference to the appropriate standards.

As a general guide the following should be noted and acted upon accordingly.

• "New plasterwork should have been completed at least 4 weeks previously and should be dry throughout. Tiles should only be fixed to the finish coat, never direct to the backing coat. Plasterwork is unsuitable as a background for tiling in wet areas." (BS 5385: Part 1: 2009 Section 6 Table 3d).

• "New concrete, concrete blocks and bricks and calcium silicate bricks should be left for at least 6 weeks before rendering or direct fixing is commenced. Cement: sand mortar rendering should be left for 2 weeks before tiling is applied."

(BS 5385: Part 1: 2009 Section 6 Table 3a).

• "At least 6 weeks should be allowed for structural floors to undergo initial drying shrinkage. If a screed is subsequently to be applied the screed should be left for at least a further 3 weeks." (BS 5385: Part 3: 2014 Section four 4.3).

• "Timber is not considered to be a suitable base for floor tiling in wet, frequently damp, or high humidity areas, unless appropriate precautions are taken (BS 5385-3). Noggins might be required between joists in order to achieve the required rigidity. The limit of deflection normally permitted for domestic timber floors (see BS 5268-2) might be too great to avoid damage to tiling systems."

• "As the floor coverings, adhesives and smoothing compounds may be adversely affected by moisture, sub-floors should be so constructed as to protect the floor covering installation from moisture or water vapour from the ground" (see BS 8203: 2001: 3.1.1)

• For additional information and guidance on tiling to Calcium Sulfate based screeds refer to The Tile Association publication "Tiling to Calcium Sulfate Screeds."

For adhesives or screeds to perform according to specification it is important that the porosity of such surfaces is reduced to acceptable levels. Highly porous cementitious based surfaces such as aerated concrete or aerated blocks must be sealed using system 2 below, as a minimum. Should any doubt remain concerning porosity then a slurry priming coat according to system 1 should be applied and allowed to set before further work proceeds.

Nicobond recommends three basic procedures for priming or sealing & reference to the following systems will appear throughout this section.

System 1 - Slurry Priming	System 2 - Priming/Sealing Exterior	System 3 - Priming/Sealing Interior
A most effective primer for all cement based adhesives & screeds, internally and externally, is to brush tightly onto the surface a thin even layer of a well stirred mixture of: 1 volume water 1 volume Nicobond Primer 1 volume of Nicobond cement based product that	For the simple priming/sealing of all cementitious and other surfaces particularly for exterior work, brush into the surface a thin even layer of: 4 volumes water 1 volume Nicobond Primer mixed by thorough stirring.	For the simple priming/sealing of most interior surfaces brush apply a thin even layer of a blend of: 4 volumes water 1 volume Nicobond Universal Bonding Agent and Sealer mixed by thorough stirring. Allow the layer to thoroughly dry before continuing.
will then be used.	The layer should be allowed to dry slightly before	Allow the layer to thoroughly dry before continuing.
The layer should normally be allowed to set for a few hours before work progresses.	applying Nicobond smoothing compounds or adhesives.	Coverage: Approximately 25 - 50m <sup>2</sup> per kg of Nicobond Universal Bonding Agent and Sealer.
Coverage: Approximately 10 - 15m <sup>2</sup> per litre of Nicobond Primer.	Coverage: Approximately 30m <sup>2</sup> per litre of Nicobond Primer.	

Application Methods for Fixing Ceramic Tiles, Mosaic and Natural Stones

#### Nicobond Enhancer 2002

Our unique liquid additive is suitable for use with a number of our cementitious adhesives and grouts within the Nicobond range. Detailed mixing ratios are contained within the data pages for appropriate products. However the following table for the number of litres required per 20 kilo bag may be found useful as a quick reference.

#### **Calculating Grout Requirements**

A useful guide to calculating the requirements of cementitious grouts for any tiling installation is as follows:

(tile length + tile width) x tile thickness x joint width

tile length x tile width

x Factor of 2

For Nicobond Easiclean Epoxide use a factor of 1.8kg/m<sup>2</sup>. For Nicobond Starlike Grout use a factor of 1.8kg/m<sup>2</sup>.

An example of this would be as follows: (330mm + 250mm) x 8 x 3

330 x 250 mm Resulting Coverage = 0.34kg/m<sup>2</sup>

Product	Water	Enhancer
CT300 Ceramic Tile Adhesive	3.6ltrs	1.6ltrs
Floor and Wall Adhesive	2.8ltrs	1.4ltrs
Waterproof Adhesive NWA 2T	3.4ltrs	3.4ltrs
Tilers Grout - Narrow Joint	5.5ltrs	2.0ltrs
Tilers Grout - Wide Joint	2.5ltrs	2.0ltrs
Flexible Grout - Narrow Joint	5.5ltrs	2.0ltrs
Flexible Grout - Wide Joint	2.5ltrs	2.0ltrs

Coverage Guide	Joint Width	Coverage
Wall Tiles		
15 x 15 x 0.6cm	2mm joint	0.3kg/m <sup>2</sup>
20 x 10 x 0.6cm	2mm joint	0.2kg/m <sup>2</sup>
20 x 30 x 0.6cm	2mm joint	0.2kg/m <sup>2</sup>
60 x 30 x 0.10cm	3mm joint	0.3 kg/m <sup>2</sup>
Mosaic Sheet 25 x 25mm	Tessara	
30 x 30 x 0.4cm	1.5mm joint	0.96kg/m <sup>2</sup>
Floor Tiles		
30 x 30 x 0.8cm	4mm joint	0.43 kg/m <sup>2</sup>
60 x 60 x 0.8cm	4mm joint	0.21 kg/m <sup>2</sup>

#### Adhesive Application Techniques

#### Thin Bed Ceramic Wall Tile Adhesives

Spread the prepared adhesive with the straight edge of a Nicobond Notched Trowel to a maximum depth of 3mm. Reverse the trowel and comb the adhesive with the notched edge, ensuring that continuous horizontal ribs of adhesive are formed.

#### Solid Bed Ceramic Wall Tile Adhesives

Working up to the maximum bed thickness specified for the product spread the prepared adhesive with the straight edge of the Nicobond Notched Trowel. Reverse the trowel and lightly comb the surface of the adhesive with the notched edge ensuring that continuous, horizontal ribs of adhesive are formed. In areas of high moisture or for exterior work, the solid bed fixing method, i.e. no voids behind the tiles, must be used.

#### Solid Bed Ceramic Floor Tile Adhesives

The mixed adhesive should be applied with the straight edge of the Nicobond Notched Trowel up to the maximum depth specified for the product. Lightly comb over the surface of the adhesive using the notched edge of the trowel. Do not press trowel through the full depth of adhesive. Where tiles have deep keys or studs, spread the adhesive onto the back of the tile to fill the keys or spaces between the studs.

#### Bonding Of The Tiles

Fix dry tiles immediately pressing them firmly into position with a slight sliding or twisting action. Where appropriate, the adhesive can be spread both onto the surface as described above, and buttered on the backs of the tiles. Which ever method is used, the tiles should be firmly tamped or pressed home to ensure solid bedding without voids (particularly on flooring installations). Floors should not be opened to any traffic until the adhesive has hardened. From time to time remove a tile to check that full contact has been made with the adhesive bed. Exterior installations must be protected from rain and frost until the adhesive has fully set. Where fixing is carried out in hot conditions, the finished tiling should be protected from direct sunlight to avoid premature drying. Adjustments to tiling can usually be made for between 10 and 20mins after fixing, refer to the Nicobond Tiling Products Directory for individual product information.

#### Marble, Granite or Natural Stones (Slabs and Tiles)

Ensure that any dust is removed from the reverse of the slab. Spread mixed adhesive evenly onto the slab up to a maximum thickness of 12mm and to within 5cm of the edge. Press the slab firmly onto the surface with a twisting or sliding action. Remove any adhesive from slab face before it hardens. Slabs being fixed in a vertical position may require supporting during the initial setting period.

Building Regulations may also require mechanical fixing.

#### **Grouting Notes**

Ensure that the adhesive has set, that all joints are dry, clean and free from all loose materials. Check that the grout selected is correct in terms of joint width and depth and relevant to the service conditions. Do not grout more than 1 -  $2m^2$  at a time.

Tiles with a soft glaze or metallic finish such as silver or 18 carat gold are prone to scratching; care must be taken in the selection of the grout to ensure it is not too abrasive for the tile chosen. If in doubt always carry out a small trial prior to grouting

Tiles which have been fixed to impervious surfaces such as concrete, glazed brick, existing glazed tiles or oil based paint should not be grouted for several days after completion of fixing, this will allow the moisture from the adhesive to dry out through the joints.

Grouted swimming pools should remain empty for 3 weeks before being filled with 'balanced' water. Pools may be filled with salt water if desired, except where the sulphate content is very high.

Using the Nicobond Grouter or Nicobond Float Grouter the grout must be worked well into the tile or mosaic joints ensuring that they are completely filled. Immediately remove any surplus grout from the tiled surface. Before the grout sets wipe the complete area with a clean, damp cloth or sponge, avoiding products e.g. highly pigmented sponges, which may cause the grout line to discolour. Tile joints should then be finished off to the desired effect. Final polishing of the tiles may be carried out with a clean dry cloth once the film of grout remaining on the surface has dried. Allow grout to fully dry before bringing into use.

When re-grouting an existing installation ensure that the old grout has been thoroughly raked out of the joints, taking care not to damage the glazed edges of the tiles. Excessive use of water when mixing or during application may cause shade variation, efflorescence, pin holing or dusting of the grout and must be avoided.

If using acid or chemical systems to clean grouted installations grouted with cementitious products it is essential to pre-soak the grout lines with clean water. Clean water must also be used to thoroughly wash off all remaining traces of the cleaning system.

With all cementitious grouting compounds it is important to follow the recommended ratio given for mixing powder to water and to employ the same technique when finishing the grout line. Should water ratios vary excessively this can effect the final colour, as will different methods of finishing off.

For large floor areas, rotary floor scrubbing machines fitted with special squeezy blades can be used to rapidly consolidate grout into the joints and assist in the cleaning process.

#### **Coloured Grouting**

Before any coloured grout is applied we recommend that a trial be carried out on a sample tile to ensure that staining of the tile surface or tile edges does not occur since N&C Building Products Limited will not accept responsibility for staining. All the ready blended colours of our cementitious grouts are intermixable within the product group to extend the colour range. High strength pigments are used in the manufacture of all Nicobond Coloured Grouts, however care should be taken in the selection and application of cleaning and maintenance chemicals as otherwise, some discolouration may occur. Waterborne chemicals in swimming pools may cause a bleaching effect and we do not recommend the use of coloured grout, other than epoxy based material. Aggressive or unbalanced water will have a detrimental effect on any cementitious grouts and in extreme cases, any epoxy product.

#### Epoxy Grout

When preparing epoxy adhesives or grouts full instructions on the packaging should be followed. It is important that any liquid components which may contain pigment are thoroughly stirred to ensure good distribution. It is also essential that all components are mixed as a complete kit; do not attempt to make up part mixes as these may not subsequently cure. Do not grout more than ½ -1m<sup>2</sup> at a time with epoxies.

#### Storage

Nicobond products must be stored clear of the ground and in dry conditions, protect from frost, direct sunlight, extremes of heat & humidity.

#### Material Safety Data Sheets

The relevant Material Safety Data Sheet can be obtained from our website www.nichollsandclarke.com or directly from N&C Building Products Ltd at the address below.

#### Manufacturer's Warranty

All Nicobond adhesives, grouts and screeds are covered by our lifetime manufacturer's warranty. If our products are proven to be defective by reason only of manufacturing workmanship we will, at our discretion, provide replacement product free of charge.

Faulty installation or non compliance with the current BS/EN Standard or The Tile Association recommendations/papers relating to substrates, the application of material and inappropriate use are excluded from this warranty and our liability is limited to the cost of replacement only on production of purchase invoice or receipt.



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