



NORTHSTONE

A CRH COMPANY

**SCREED
BROCHURE**



ADDING CUSTOMER VALUE

Our Vision

Delivering Excellence through
the **Passion of Our People**

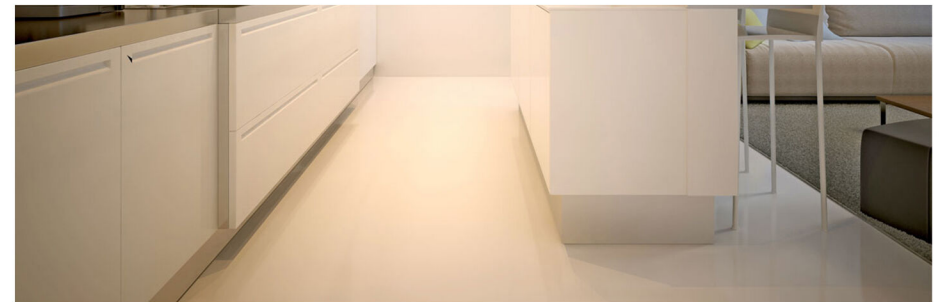
Working Together

Working closely with our customers and being flexible to their needs means that as well as developing new products, we are able to provide solutions that allow our customers to achieve better results faster, for less cost.

Northstone actively coach and develop staff and are committed to investing in improving our people. A 'can do' attitude is evident throughout the team ensuring consistent levels of customer service, with a fast and flexible response to customer enquiries. Building customer relationships at all levels through effective communication is at the heart of what we do.

Innovation

We are constantly striving to develop new innovative products and solutions that offer very real benefits to our customers. From housing to commercial projects or refurbishment to new developments, we have a screed to suit any project. Our innovation strategy focusses on enhancing quality, improving site productivity and reducing waste.



METHODS OF SCREED CONSTRUCTION

BONDED SCREED

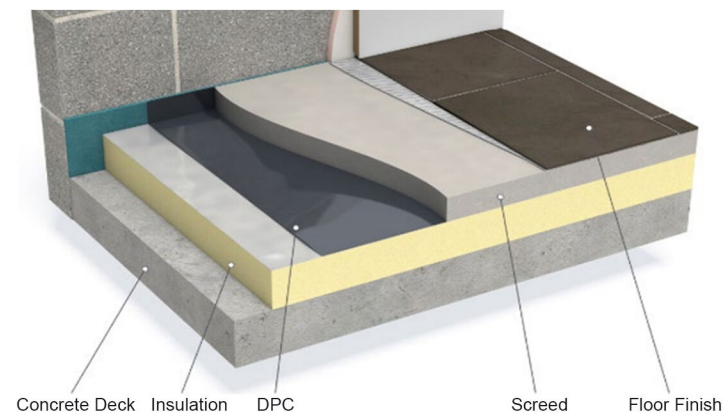


UN-BONDED SCREED

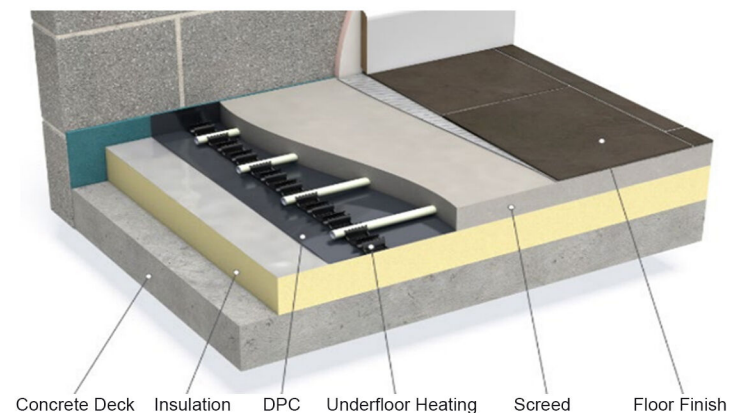


METHODS OF SCREED CONSTRUCTION

FLOATING SCREED



FLOATING SCREED WITH UNDERFLOOR HEATING



PREPARATION & AFTERCARE

Preparation

- Ensure building is weather tight
- Ensure insulation or substrate is properly prepared in accordance with BS 8000 or manufacturer's guidelines



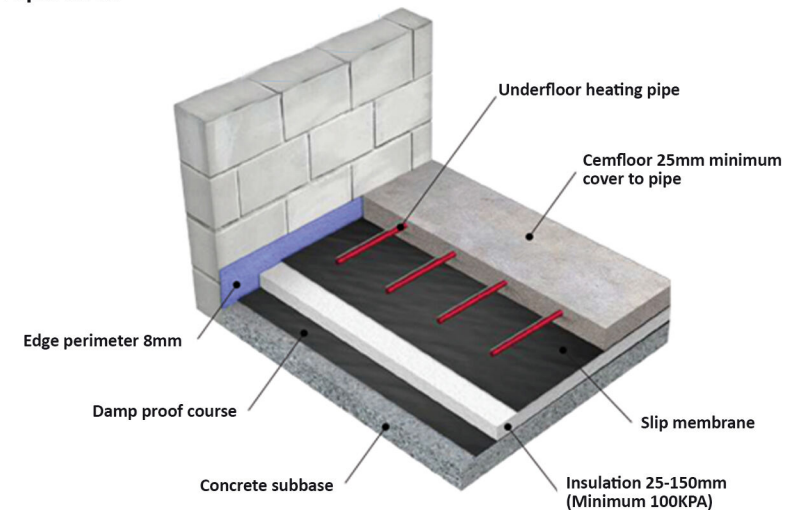
Aftercare

- Minimise site traffic for first 48hrs
- Keep all windows and doors closed for the first 48hrs
- Ensure floor is protected from damage
- Ensure floor is tested for moisture prior to applying floor coverings



CEMFLOOR PREPARATION & AFTERCARE

Preparation



Aftercare

- Minimise site traffic for first 48hrs
- Keep all windows and doors closed for the first 48hrs
- Ensure floor is protected from damage
- Protect floor from contaminants that may impede the drying process; i.e paint, plaster etc
- Follow guidelines for commissioning underfloor heating where relevant
- Ensure floor is tested for moisture prior to installing floor coverings
- Ensure floor is suitably prepared
- Refer to technical datasheet or your Northstone representative for further information

COMPARISON CHART



Floor screeds are in essence there to provide a level surface to receive the final floor finish. The type of finish, level of traffic and timeframe for installation are the key considerations when deciding on a screed for your project.

| | UFH | BRE Cat | Approx. Strength** | | Minimum Depths | | | Non Heated* | | Heated* | | Traceable |
|---------|-----|---------|--------------------|----------|----------------|----------|----------|-------------|-------|---------|-------|-----------|
| | | | Compressive | Flexural | Bonded | Unbonded | Floating | Tiles | Vinyl | Tiles | Vinyl | |
| Flowing | | A | 20 | 4 | 20 | 30 | 50 | 21 | 50 | 21 | 35 | |
| | ✓ | A | 25 | 5 | 20 | 30 | 50 | 21 | 50 | 21 | 35 | |
| | ✓ | A | 30 | 6 | 20 | 30 | 50 | 21 | 50 | 21 | 35 | |
| | ✓ | A | 30 | | | 65 | 70 | 21 | 80 | N/A | N/A | |
| | ✓ | A | 30 | | | 65 | 70 | 21 | 80 | 28 | 42 | |
| Tipper | | C | 16 | 1 | 25/40 | 60 | 65 | 28 | 112 | 42 | 56 | |
| | | B | 20 | 2 | 25/40 | 60 | 65/75 | 28 | 112 | 42 | - | |
| | | A | 25 | 3 | 25/40 | 60 | 65/75 | 28 | 112 | - | - | |
| | ✓ | A | 25 | 5 | 25/40 | 50 | 65/75 | 8 | 21 | 16 | 17 | ✓ |
| | ✓ | A | 25 | 5 | 25/40 | 50 | 65/75 | 5 | 14 | 14 | 14 | ✓ |
| | ✓ | A | 35 | 7 | 25/40 | 50 | 65/75 | 5 | 14 | 14 | 14 | ✓ |
| | ✓ | A | 35 | 7 | 25/40 | 50 | 65/75 | 10 | 35 | 30 | 30 | ✓ |

** These results are indicative and may be subject to change

* Dependent on ambient temp and humidity



PRODUCT NORTHFLO CEMFLOOR

“Northflo cemfloor is a BBA Approved, high-performance cement based, self compacting liquid screed and is suitable for a variety of applications.”

Due to the efficiency of Northflo Cemfloor, it is specifically designed for use with underfloor heating systems. Northflo Cemfloor Screed totally encapsulates the underfloor heating pipework and eliminates air voids which ensures optimal heat transfer from the heating pipework to the screed surface. It can also be installed at much thinner depths compared to traditional sand and cement which ensures ultimate controllability of the underfloor heating system.

When using underfloor heating with Northflow Cemfloor, the energy usage and cost are greatly decreased due to the efficiency of the system. High thermal conductivity of the screed and the lower thickness combines to achieve this improved performance but also means that the response time is substantially reduced so that the whole system will heat up much quicker.

- Exceptional thermal conductivity
- Can be used in wet areas
- Can be force dried after 7 days
- Compatible with all cement based adhesives; including fast track systems
- Self-compacting – no voids around underfloor heating pipes
- Can be tiled as soon as 5 days after installation*
- Can receive DPM's at or below 97% RH

*Non heated using green screed adhesive systems



PRODUCT NORTHFLO CEMFLOOR

| | C20 | C25 | C30 |
|------------------------|-------------|-------------|-------------|
| Flexural Strength | F4 | F5 | F6 |
| Compressive Strength | C20 | C25 | C30 |
| BRE Test | A | A | A |
| Drying times | | | |
| Tiles (Non Heated) | 5/21 days** | 5/21 days** | 5/21 days** |
| Vinyl (Non Heated) | 56 days* | 56 days* | 56 days* |
| Complete Heating Cycle | 21 days | 21 days | 21 days |

Heating cycle

| | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 | Day 15 | Day 16 | Day 17 | Day 18 | Day 19 | Day 20 |
|-------------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Northflo Cemfloor | 25°C | 25°C | 25°C | 30°C | 35°C | 40°C | 40°C | 40°C | 40°C | 40°C | 30°C | 20°C | OFF |

Cemfloor products can only be installed by authorised and approved layers.

PRODUCT CEMFLOOR HPC

Cemfloor High Performance Concrete (HPC) is a specially formulated self-compacting concrete containing a 10mm aggregate that can be used to create stronger and more durable floor slabs with less shrinkage and increased bay sizes to minimise joints than those constructed with conventional concrete. Higher compressive and flexural strengths are achieved enabling a reduction in slab thickness providing an improved environmental profile. High quality finishes can be achieved without power floating. This product is highly suitable for all commercial and light industrial projects.

- Enable the rapid and effortless fabrication of slabs and floors
- Flexural strength at 28 Days Min 6N/mm²
- Eliminates the need for power floating
- Maximise thermal mass potential in conjunction with underfloor heating (HPC Therm)
- Can be combined with structural steel fibres

Uses

- Domestic Floors
- Heated Floors (HPC Therm)
- Commercial slabs such as composite deck construction
- Structural toppings
- Residential dwelling oversite/slabs

PRODUCT CEMFLOOR HPC

| | Cemfloor HPC / Therm |
|------------------------|----------------------|
| Flexural Strength | F6 |
| Compressive Strength | C35 |
| BRE Test | A |
| Drying times | |
| Tiles (Non Heated) | 7/28 days |
| Vinyl (Non Heated) | 56 days* |
| Complete Heating Cycle | 21 days |

Heating cycle

| | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 | Day 15 | Day 16 | Day 17 | Day 18 | Day 19 | Day 20 |
|--------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cemfloor HPC | 25°C | 25°C | 25°C | 30°C | 35°C | 40°C | 40°C | 40°C | 40°C | 40°C | 30°C | 20°C | OFF |

Cemfloor products can only be installed by authorised and approved layers.

PRODUCT TRADITIONAL SCREEDS

We do a range of sand cement screeds, Domestic, 5:1 and 4:1 screed which use a special blend of sands for ease of use for the layers. Traditional sand cement screeds have been used for hundreds of years and perform the basic task of levelling the floor in preparation for the final floor finish. For many years there was not the same urgency to get floor coverings down and these screeds have performed well for lower cost. However when time is important often cost can increase dramatically when using ancillary products on top to reduce programme times compared to using quick drying screeds.

- Cost effective
- Compatible with most adhesives
- Can be laid to falls
- Factory produced

| | Domestic | 5:1 | 4:1 |
|------------------------|----------|----------|----------|
| Flexural Strength | F1 | F2 | F2 |
| Compressive Strength | C16 | C20 | C25 |
| BRE Test | C | B | A |
| Drying times | | | |
| Tiles (Non Heated) | 28 days | 28 days | 28 days |
| Vinyl (Non Heated) | 112 days | 112 days | 112 days |
| Complete Heating Cycle | 42 days | 42 days | 42 days |

PRODUCT CONTOPP SCREEDS

Contopp Screeds are a specially German engineered screed admixture that not only reduce the water demand of the mix but also prevent the reabsorption of moisture due the high humidity, meaning unlike traditional quick drying screeds, Contopp screeds continue along a downward trajectory when drying out. This ensures consistent drying performance regardless of the time of year!

- Improved compaction for use with heated screeds
- Luminescent tracers to ensure correct product used
- Increased flexural and compressive strength
- Reduced risk of shrinkage and curling
- Can be factory produced for optimal control
- Can be combined with Ardex products for system guarantees

| | Contopp 10RS | Contopp 15RS |
|------------------------|--------------|--------------|
| Flexural Strength | F5 | F5 |
| Compressive Strength | C25 | C25 |
| BRE Test | A | A |
| Drying times | | |
| Tiles (Non Heated) | 8 days | 5 days |
| Vinyl (Non Heated) | 28 days* | 21 days* |
| Complete Heating Cycle | 14 days | 11 days |

*Dependent on residual humidity and temperature

| | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 | Day 14 |
|--------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Contopp 10RS | | 25°C | 35°C | 45°C | 55°C | 55°C | 55°C | 45°C | 35°C | 25°C | OFF |
| Contopp 15RS | 25°C | 35°C | 45°C | 55°C | 55°C | 45°C | 35°C | 25°C | OFF | | |

Full system guarantees available with Contopp and Duremitt screeds. Contact sales@northstone-ni.com for more information.



ABOUT NORTHSTONE MATERIALS

We have been supplying the construction industry in Northern Ireland for more than 60 Years. Our combined product portfolio and associated services consistently achieve a reputation for quality and value unrivalled in the materials supply sector in Northern Ireland.

We build on our core values of a well established professional company taking service level, value and customer choice to new levels of excellence. We offer our customers, existing and new, a wide range of products and services from one source. This results in simplified purchasing, invoicing and payments as part of our enhanced customer package. Customers are assured of responsiveness to their needs and superior service levels. Establishing effective, long lasting relationships with our customers is of primary importance to everyone in our team.



**OVER
60
YEARS
IN BUSINESS**
with over 50 locations

Our Vision
Delivering Excellence through
the **Passion of Our People**



NORTHSTONE: A CRH COMPANY

Croaghan Quarry, Shinnys Road, Coleraine, BT51 4PS

Tel: +44 (0) 28 7032 1100 Email: sales@northstone-ni.com