



Hydrothane HD

Heavy Duty Polyurethane Screed

USES

HYDROTHANE HD provides a high strength, heavy duty floor topping with excellent resistance to mechanical damage and chemical attack. The product is ideally suited for use in aggressive environments including chemical process areas, steelworks, food and drink manufacturing areas, dairies, breweries, plating shops, abattoirs, engineering shops, production lines, workshops and warehouse areas. There is also an antibacterial grade of Hydrothane available.

DESCRIPTION

HYDROTHANE HD is a four-pack solvent free polyurethane floor topping system formulated from carefully selected resins, activators and specially graded high strength aggregates. The product is laid by trowel between 6mm and 9mm thickness.

ADVANTAGES

Durable	excellent abrasion resistance, low maintenance costs
Chemically resistant	excellent resistance to a wide range of chemicals
Seamless	eliminates potential sources of failure
Non-slip	non-slip, easy to clean surface for vehicular and pedestrian traffic.

PHYSICAL PROPERTIES

Compressive Strength	58 N/mm ²
Tensile Strength	5 N/mm ²
Flexural Strength	13 N/mm ²
Specific gravity	2.05
Pot Life	15 - 20 mins
Softening Point	101°C
Service Traffic	16 hours
Full Strength	5 - 7 days

(Below 20°C these times will be increased)

CHEMICAL RESISTANCE

HYDROTHANE HD is resistant to a wide range of chemicals. Specific data is available on request from the Technical Services Department.



COLOURS

HYDROTHANE HD is available in Red, Green, Light Grey, Dark Grey, Cream, Yellow and Orange.

TEMPERATURE

It is not advisable to install Hydrothane HD when the ambient or slab temperature is below 16° C or above 22° C. Should the installation temperature be above or below these figures, please refer to the separate preparation and finishing detail datasheet or refer to the Technical Services Department.

SURFACE PREPARATION

It is essential that the substrate surfaces are correctly prepared prior to application. New concrete or cementitious substrates should have been placed for at least 28 days, unless specially water reduced and give a protimeter reading of less than 75% RH before topping with Hydrothane HD. All substrates should be sound and free from contamination with oil, grease and other matter. Any oil or grease contamination must be removed completely to provide a sound clean substrate and excessive laitance should be removed. Old concrete floors should also be prepared in order to provide a sound clean substrate. Please refer to the preparation and finishing detail datasheet for further details.

PRIMING

All substrates should be primed prior to the installation of Hydrothane HD. The primer should be applied as a thin continuous film using stiff brushes or rollers. Avoid over application and puddles. Porous floors may require two coats of Primer. The primer should be allowed to cure overnight prior to the application of Hydrothane HD. Should the substrate give a Protimeter reading greater than 75% RH then please refer to the preparation and finishing detail datasheet for further details.

COVING

Please refer to the Hydrothane CG Datasheet for details on coving.

MIXING AND APPLICATION

HYDROTHANE HD is supplied in pre-weighed packs ready for on site use.

Mechanical mixing is essential and the following mixing equipment is suitable:

- Crete-angle
- Single Blade
- Stelram Engineering G8 – Single Blade
- Mixal MR40
- Collomatic

Hand mixers must not be used.

MIXING PROCEDURE

- Position the mixer as near to the working area as possible.
- Ensure that the components are at a temperature in the range 10 - 28° C, preferably 16 – 22° C.
- Pour the entire Base into the mixer and switch on. Add the entire Hardener and blend for 30-60 seconds to create a uniform dispersion, add the Pigment sachet and continue to mix.
- Gradually add the Aggregate whilst mixing continues and mix until the Aggregate and Pigment is thoroughly dispersed and the mix is uniform.

If the stored components are already warm, over mixing must be avoided as this will speed up the cure rate, leading to a decreased working life. Mixing time is judged with experience, the table below should be used as a guide only.

Components Temp °C	Mixing Time After Aggregate Addition (min)
10 - 12	4
13 - 15	3
16 - 22	2
23 - 28	1.5

NOTES: It is important that the mix is placed on to the substrate quickly and the mixing of the subsequent batch starts straight away, this ensures good uniformity between mixes. Ensure the time between mixes is kept to a minimum, the mixer should either have two mixing buckets which are rotated or the facility to tip the mixed contents into a separate container i.e. wheelbarrow (plastic lined). Incorrect mixing may lead to poor aggregate dispersion, poor flow, excessive trowel marking, pimples or blisters in the cured floor or surface unevenness.

Scrape out the mixing vessel and paddles between mixes and thoroughly clean them whenever mixing has ceased for 5 mins or more. Solvents such as white spirit and xylene may be used for cleaning; care must be taken to ensure solvents do not spill into components, mixes or onto coated floors. For use of solvents in food environments please refer to Conren's Technical Services.

To minimise the risk of shade variation:

- The components should be used in numerical sequence of batch numbers
- Adjacent areas should be laid with product from the same batch
- Use a constant mixing time (except where significant temp. variations occur)
- Keep the mix size consistent i.e. single or double
- Ensure adequate mixing time at low temperatures

APPLICATION

- Spread the mix evenly over the primed substrate and close using a steel trowel.
- Avoid over trowelling as this can result in gloss variations and impaired slip resistance.
- Use a mohair roller in gentle sweeps in one direction over the surface to provide a more even finish, it should be noted this will reduce slip resistance, avoid excessive rolling.

COVERAGE & PACK

Pack size	Coverage
Base 2.67kg	6mm Approx 1.9m ² per pack
Hardener 2.86kg	9mm Approx 1.5m ² per pack
Aggregate 24.50kg	
Pigment 0.5kg	
TOTAL 30.53kg	

DISPOSAL AND STORAGE

Spillage should be absorbed with sand or sawdust and disposed of in accordance with statutory regulations. For storage information please refer to the preparation and finishing detail datasheet for further details.

PRECAUTIONS

Containers should be kept tightly sealed when not in use. In the event of fire extinguish with CO² or foam. Hydrothane HD and Primers should not be allowed to come into contact with skin or eyes or be swallowed. Gloves, goggles and suitable barrier cream should therefore be used. Hydrothane HD Hardener contains Isocyanates and care should be taken to keep inhalation of vapours to a minimum. Ensure adequate ventilation and if working in enclosed areas. Suitable breathing apparatus must be used. In the event that mixed resin comes into contact with the skin it must be removed before it hardens with a good quality resin removing cream, followed by washing with soap and water. Do not use solvent. If accidental eye contamination occurs irrigate with copious quantities of clean water and seek medical advice. If ingestion of any of the materials takes place seek medical attention immediately. Do not induce vomiting. Refer to the MSDS for full safety details.

CONTRACTING SERVICE

Conren Limited offers a contracting service for the application of all Conren products. This facility is back by a comprehensive technical and after sales service. We are able to contend with most problems in the field.

TECHNICAL SERVICE & QUALITY ASSURANCE

All information provided in this leaflet is based on results obtained from our own experience and test and is given in good faith. The user will be deemed to have satisfied himself independently of the suitability of Conren's products for his own particular purpose. We guarantee to replace, free of charge, any goods supplied by us which are proved to our satisfaction defective, but, as the application of these materials is necessarily beyond our control, we will not accept responsibility for any damage or loss arising wholly or in part from these materials. Except as herein provided, any express or implied condition, warranty, statement or representation, statutory or otherwise as to the quality of the goods is expressly excluded.

SPECIFICATION

Heavy-duty floor topping shall be Conren Hydrothane HD Polyurethane Screed.

All products to be applied in accordance with Conren's written instructions.

Conren Limited
Ditton Road
Widnes
Cheshire
WA8 0PG
UK

Tel: +44 (0) 151 422 3999
Fax: + 44 (0) 151 424 5053
e-mail: info@conren.com
web: www.conren.com