



SAINT-GOBAIN

duragrout® HP C80/95

**NON-SHRINK,
GOOD OPEN TIME,
CEMENTITIOUS
GROUT**

DESCRIPTION

duragrout® HP C80/95 is a ready-to-use (merely add water) Portland cement-based high performance grouting compound, free of chlorides and high- alumina cement. It contains graded siliceous aggregate and chemical reagents which prevent shrinkage during curing.

USES

- **BEDDING:** bases of machines, columns, bearing plates, crane rails, bridge beds and slabs
- **GROUTING:** anchor bolts, cables, starter bars, top steel, post tensioned cables, prefabricated units and footings
- **PUMPING:** confined spaces
- **HORIZONTAL GROUTING:** cavities in horizontal spaces
- **WIND FARM TURBINES:** grouting and bedding of structural elements

ADVANTAGES

- Dustless
- Non-shrink
- Excellent long open time for ease of placement
- High ultimate strengths
- Ultimate compressive strength > C80/95
- Non bleeding, no segregation and good cohesion properties
- Application thickness 25 to 100mm
- Extremely high flowability, 90% flow after 20 minutes at 25 °C
- Pumpable or gravity feed

DESIGN CRITERIA

A minimum clearance of 50 mm is required between bed and base. For smaller areas where the flow will not be restricted, a limited minimum thickness of 25 mm is recommended. When grouting anchor bolts, three times the bolt diameter is necessary. Smaller clearances should be grouted with **epidermix® 324** flowable epoxy grout.

PHYSICAL PROPERTIES

Flow trough length 800 mm & T=time lapse DIN EN 13395	
grout flow at T0 min	620 mm
grout flow at T20 min	560 mm
Flexural strength (40 x 40 x 160 mm prisms) EN 196-1	3 days 14.7 N/mm ²
	7 days 15.0 N/mm ²
	28 days 17.2 N/mm ²
Nominal Compressive Strengths - MPa @ 22 - 25 °C using 0.12 (3 L) H ₂ O : Powder m/m (40 x 40 x160 mm prisms) EN 196-1	
3 Days	81
7 Days	88
28 Days	94
Expansion %	0.5 - 2
Fresh wet density	2.37 g/cm ³
Yield at 2.6 l water added/25 kg	11.6 litres/25 kg

SURFACE PREPARATION

Provision for the escape of entrapped air must always be made. Contact surfaces must be clean, sound, and free from dust and shutter release oils. Concrete surfaces must be thoroughly pre-wetted at least 4 hours prior to grout placement. Any excess surface water (free water) must be removed prior to placing the grout. Surface temperatures should not be less than 5 °C. Always ensure that the shutters are watertight and sealed to prevent suction of water from the product. Ensure that the grout delivery head is of adequate height in order to accommodate the distance the grout must flow. Always pour from one side thus ensuring that the grout fills the void without entrapping air.

BONDING/PRIMING

No primer required but in certain Instances where structural bonding is required **epidermix® 344** should be used.

MIXING

All water contents apply to 25 kg pockets of **duragrout® HP C80/95**. Water quantities must be adjusted to match size of mix. Mixes must always use complete pockets, but more than one pocket may be used. Mixing of grout may be carried out in a pan mixer, drum mixer or by using a slow speed electric drill fitted with a suitable paddle. Using the standard 25 kg pocket of grout, add 2.4 l of clean water to the mixing vessel. While stirring continuously, add the dry powder until the mixture is free from lumps. Then add further 200 mls of water if required, continue mixing until a smooth, creamy consistency is obtained.

Do Not exceed 2,6 litres of water per 25 kgs of **duragrout® HP C80/95**. The mix tends to 'wet-out' slowly during the first minute of mixing however full plasticization of the grout is achieved after 5 minutes mixing time (i.e. avoid adding extra water to achieve flowability).

Caution: High speed mixing will entrap air, if air entrapment is experienced then the product must be left to stand to allow the entrapped air to expel prior to application.

Total mixing time should be approximately 5 minutes.

Note: The mix looks dry at approximately 3 minutes and thereafter you see the wetting out of the mix due to mechanical action.

COVERAGE

One bag of **duragrout® HP C80/95** will yield approximately 0.0116 m³ (11.6 l) of grout at a 2.6 l water demand).

APPLICATION

Mixed grout should be poured into the cavity at one point only to avoid entrapping air. For best results, mixed grout should be poured within 10 minutes of mixing and definitely within 30 minutes. If grout is not placed immediately after mixing, keep the material agitated. Grouting mixture more than 30 minutes old must be discarded. **duragrout® HP** can be compacted by gentle rodding or punning. It may also be applied by means of standard low pressure grouting pumps. Do not re-temper the grout should the consistency drop due to time lapse.

PUMPING

duragrout® HP C80/95 may be pumped with a positive displacement screw feed pump. The supply pipe diameter should be at least 25 mm or greater, ensure that the pipe is lubricated with a slurry prior to pumping. The process should be continuous, from one direction and the vents sealed consecutively, as progressed, in the direction of flow.

CLEANING

duragrout® HP C80/95 should be removed from tools and mixing equipment immediately after use and before material has set with clean water. Cured material can be removed mechanically.

PROTECTION ON COMPLETION

Grout surfaces should be protected from wind or high temperature, which can cause rapid drying. Cover the surface with damp sacks for at least 7 days. Do not allow the sacks to dry out; alternatively apply **duracure SB-C** (solvent based - clear) and **duracure WB** (waxed based) curing compound.

TEMPERATURE AND RELATIVE HUMIDITY

Surface, ambient and water temperatures should not be less than 5 °C and rising. The ideal temperature range for application is between 20 °C and 30 °C.

MODEL SPECIFICATION

High performance, non-shrink cementitious grout, having at least 75 % of its initial flow after 20 minutes for precision grouting.

The grout will be **duragrout® HP C80/95**, a pre-packed, one-component, non-shrink, precision grout applied in accordance with the recommendations of **a.b.e.®**, including curing with **duracure SB-C** (solvent based - clear) and **duracure WB**.

The grout will have a minimum one-day compressive strength of 13 MPa and at 3 days a minimum of 80 MPa and greater than 90 MPa at 28 days at 25 °C.

PACKAGING

duragrout® HP is supplied in 25 kg polyethylene lined paper bags.

HANDLING AND STORAGE

duragrout® HP C80/95 has a shelf-life of 12 months if kept in a dry store in sealed bags. If stored in high temperature and in high humidity locations the shelf-life may be reduced.

HEALTH AND SAFETY

duragrout® HP C80/95 is alkaline and should not be allowed contact with skin and eyes. Avoid inhalation of dust during mixing by wearing dust masks. The use of gloves, eye protection and dust masks is advised. Immediately wash with water in the event of contact with skin. Splashes into eyes should also be washed immediately with plenty of clean water and medical advice sought.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.®** endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot accept any liability for application – because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied.

FURTHER INFORMATION

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements.

a.b.e.® has a wealth of technical and practical experience built up over the years in the company's pursuit of excellence in building and construction technology.

Please consult our website for our latest data sheets.

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a.b.e.® is an ISO 9001:2015 registered company
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