

# TECGRIP HL POLYESTER RESIN ANCHOR GROUT SUMMER-WINTER

## Description

Tecgrip HL, part of the Tecgrip range of polyester resin anchor grouts, is used for the fixing of steel bolts and bars into pre-drilled holes within concrete, rock, brickwork, stonework, masonry or other substrates capable of supporting the required load. Formed anchors are high strength fixings which are resistant to corrosion and may be loaded quickly after installation. Placed anchors are resistant to vibration, do not exert expansive forces and may be designed for under water installation. Tecgrip HL consists of a low viscosity polyester resin plus a catalysed filler. The two components are mixed to produce a filled resin grout which may be pumped into suitably prepared anchor holes angled horizontal to 45° above horizontal. The mixed grout is coloured mid-grey and is used for upward facing holes where the hole diameter is 20mm to 50mm greater than the bolt or bar diameter.

- Uses include:**
- Stress anchor plates
  - Overhead rail tracks
  - Starter bars and dowels
  - High impact loads

## Specification Outline

Anchor grouting shall be carried out using Tecgrip HL as manufactured by Tecroc Products Ltd. The product must be stored handled and used strictly in accordance with the manufacturer's instructions

## Quality Assurance

Tecroc Products Ltd is a firm of Assessed Capability. The company's quality system conforms to BS EN ISO 9002:1994 and is assessed by SGS Yarsley International Certification Services Ltd.

## Typical Anchor Properties @ 20°C Anchor Strengths

Length of Anchor Bond (mm)	Uniaxial Pull Out Load (tonnes)
100	3
200	8
400	16
600	24

Deformed bar to BS 4449 in un-reinforced 20N/mm<sup>2</sup> concrete, holes drilled by rotary percussive method on air flush

### Parameters controlling Uniaxial Pull Out Load:

- Type and strength of base material
- Length of resin anchor bond
- Hole forming or drilling method
- Type of fixing, bolt or bar

### Safety Factors:

- Non critical applications : 1.5 minimum
- Critical applications : 2.0 minimum
- Compliance with relevant codes of practice and standards.

### Working Time

- Winter Grade 8 - 12 minutes  
(above 20°C setting will be rapid)
- Summer Grade 18 - 22 minutes  
(below 10°C setting will be extended)

### Compressive Strength

Age At Test	2 Hours	1 Day	7 Days
Compressive Strength	40 N/mm <sup>2</sup>	80 N/mm <sup>2</sup>	95 N/mm <sup>2</sup>

- Tensile Strength** 17N/mm<sup>2</sup> @ 7 Days
- Compressive Modulus** 16kN/mm<sup>2</sup> @ 7 Days
- Density** 1800kg/m<sup>3</sup>

### Standards

Tecgrip HL has been tested in accordance with the appropriate parts of BS 6319, BS 5080

**Head Office**  
Holly Lane Industrial Estate  
Atherstone  
Warwickshire  
CV9 2RN  
Tel: 01827 711755  
Fax: 01827 711330

**Northern Regional Office**  
Unit 2 Shawcross Court  
Shawcross Business Park  
Dewsbury  
West Yorkshire. WF12 7RF  
Tel: 01924 485548  
Fax: 01924 488662

Web site: [www.tecroc.co.uk](http://www.tecroc.co.uk)

E-mail: [enquiries@tecroc.co.uk](mailto:enquiries@tecroc.co.uk)

**TECROC**  
PRODUCTS

TECROC  
PRODUCTS



# TECGRIP HL POLYESTER RESIN ANCHOR GROUT SUMMER-WINTER

## Anchor Installation

### Holes and Bar Types

Holes should be drilled using rotary percussive drills with air or water flush. The drill bit should be of the integral type with an elliptical head. Holes which are diamond cored should be under-reamed or roughened. Holes which are drilled with a rotary percussive non-flushing drill bit should be cleaned using a steel rotary brush. Loosened dust should be blown out of the hole using compressed air through an extension tube reaching to the bottom of the hole. Cast holes should taper so that the hole diameter is smaller at the mouth than the bottom.

Steel bars used for anchoring should be deformed such as those manufactured to BS 4449. Threaded bars may be used. When using smooth bars an extra safety factor should be incorporated into the anchor design.

### Grout and Bar Placing

Place contents of resin can into plastic container or pail. Slowly add catalysed filler whilst mixing. Continue mixing until a uniform colour is achieved. Correct mix proportioning must be used to achieve the designed anchor strength. Place mixed grout into a Tecgrip Cartridge or Gun then pump grout to the back of the prepared hole. Once grout has been placed insert bar into hole and gently twist and press home to the required depth. The bar should be supported if necessary then left undisturbed until the grout has hardened.

Equipment should be cleaned with Solvent prior to grout hardening.

For installations under water please consult the Technical Service Department.

## Storage And Shelf Life

Tecgrip Products will have a shelf life of 6 months when kept in dry conditions at a temperature of 5°C to 25°C. Storage at higher temperatures and high humidity may reduce the shelf life.

## Grout Volumes Required

The following table gives typical Tecgrip HL grout volumes required for given bolt/bar and hole diameters. The volumes given are in cm<sup>3</sup> per 100mm of bond length.

Hole Dia (mm)	Bolt Dia (mm) 16	Bolt Dia (mm) 20	Bolt Dia (mm) 25	Bolt Dia (mm) 32	Bolt Dia (mm) 40	Bolt Dia (mm) 50	Bolt Dia (mm) 60
40	105						
50	175	165	150				
60		250	235	205	155		
80				420	385	305	220
100						590	285

## Precautions: Temperature in Use

Tecgrip Products may be placed at temperatures between 5°C and 35°C. Use in structural situations at temperatures above 60°C is not recommended. Consult the Technical Service Department for further advice

## Health and Safety

Tecgrip Polyester Anchor Grouts are resin based. Resins and solvents may cause allergic reactions in some people. Wear gloves, use barrier cream on unprotected skin and wear eye protection when mixing, using and cleaning. Ensure adequate ventilation to prevent inhalation of vapours. If skin contact occurs remove resin immediately with cleansing cream and wash with soap and water. Do not use Solvent. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice. If swallowed do not induce vomiting. Seek medical advice immediately.

Full health and safety details are given in Product Safety Data Sheet

## Fire

Tecgrip HL Resin and Solvent are flammable. Should fire occur extinguish with CO<sub>2</sub> or foam.

## Packaging and Ordering

Tecgrip HL is supplied in the following pack sizes, Summer and Winter Grades.

13.7kg pack (7.8litres) Summer Product Code TGR 04S

13.7kg pack (7.8litres) Winter Product Code TGR 04W

Solvent is supplied in 5 litre and 1 litre tins.

5 litre tin : Product Code TM02

1 litre tin: Product Code TM08

For further information and sales please contact your local Tecroc Products Office as listed below.

Tecroc Products Ltd products are guaranteed against defective materials and manufacture. Products are sold subject to the Tecroc Products Ltd Terms and Conditions of Sale, copies of which are forwarded on invoice and are available on request. Tecroc Products Ltd endeavours to ensure that the above data and any further advice is correct, however, it cannot accept any direct or indirect liability for the use of its products as such usage is beyond its control.