



# Technical Data Sheet

## BC PE Grout

### Two-Component Polyester Resin Based Anchoring Grout

#### 1). Product Description

BC PE Grout is a two-component, polyester resin-based anchoring grout designed for permanent, high-strength fixing of steel bolts and bars into pre-drilled holes in concrete, rock, brickwork, masonry, and other solid substrates. It consists of a low-viscosity polyester resin (Part A) and a catalyzed filler (Part B), which, when mixed, form a high-performance, pourable or pumpable grout. The product provides rapid setting, non-shrink, corrosion-resistant anchorage with high early strength development, suitable for both vertical and downward applications. Available in summer and winter formulations to ensure consistent performance across temperature ranges.

#### 2). Primary Applications

- Fixing base plates and heavy-duty machinery
- Anchoring rail tracks, dowels, and starter bars
- Mounting safety fences and balustrades
- Fixing bolts in concrete, stone, or brickwork
- Grouting under reciprocating or impact-loaded machinery
- Structural anchoring requiring rapid early strength

#### 3). Features / Benefits

- Rapid setting with high early strength gain
- Excellent adhesion to steel and concrete
- Non-shrink and corrosion resistant
- High ultimate compressive and tensile strength
- Pre-batched components for easy and accurate mixing
- Suitable for overhead or downward applications
- Winter and summer grades available for all climates
- Tested according to BS 6319 and BS 5080 standards



#### 4). Technical Data

Property	Test Method / Standard	Typical Value
Chemical Base	-	Polyester resin with catalyzed filler
Appearance (Mixed)	Visual	Dark grey paste
Density	ASTM D1475	~1800 kg/m <sup>3</sup>
Compressive Strength	BS 6319	2 hrs: ~40 N/mm <sup>2</sup>
		1 day: ~80 N/mm <sup>2</sup>
		7 days: ~95 N/mm <sup>2</sup>
Modulus of Elasticity (Compression)	BS 6319	~16 kN/mm <sup>2</sup> (7 days)
Tensile Strength	BS 6319	~17 N/mm <sup>2</sup> (7 days)
Shrinkage	-	Nil (non-shrink)
Corrosion Resistance	-	Excellent
Application Temperature Range	-	+5°C to +35°C

#### 5). Directions for Use

##### Surface Preparation:

- Drill holes to the correct diameter and depth using a rotary percussive drill with air or water flush.
- The drill bit should have an integral elliptical head to avoid polishing the surface.
- Holes must be clean, dry, and free of oil, grease, dust, or debris.



### Mixing:

1. Pour Part A (Resin) into a clean plastic container.
2. Slowly add Part B (Catalyzed Filler) while mixing continuously.
3. Mix for approximately 2 minutes until a uniform dark grey color is achieved.
4. Ensure complete and homogenous mixing to achieve designed anchoring strength.
5. Use immediately after mixing due to limited pot life.

### Application:

- Pour or pump the mixed grout into the prepared hole or formwork from one side to avoid air entrapment.
- Maintain a continuous liquid head to ensure full contact beneath base plates.
- Recommended minimum grout thickness: 25 mm (1 inch).
- Fill to slightly above the underside of the base plate (approx. 3 mm).
- For overhead applications, support until initial set occurs.

### Cleaning of Tools:

Clean all tools and equipment immediately after use with BCI Thinner C. Cured or hardened material can only be removed mechanically.

### Parameters Controlling Anchor Load

The uniaxial pull-out load of an anchor depends on several key parameters:

- Type and strength of base material
- Hole diameter and roughness
- Embedment depth and length of resin bond
- Type and surface condition of anchor bar or bolt
- Method of drilling and hole preparation

## 6). Coverage

- Dependent on hole diameter, depth, and bar size.
- As a general guide, 1 kg of mixed BC PE Grout fills approximately 550 cm<sup>3</sup> of volume.

## 7). Packaging

- Part A (Resin): 1 kg can
- Part B (Catalyzed Filler): 4 kg bag
- Combined Unit: 5 kg (A+B set)



## 8). Shelf Life

18 months from date of manufacture when stored in original, unopened packaging under proper conditions.

## 9). Storage Conditions

- Store in a dry, shaded area at temperatures between +5°C and +30°C.
- Protect from heat, humidity, and direct sunlight.
- High temperatures or moisture exposure may reduce shelf life.

## 10). Health & Safety

- Wear protective gloves, goggles, and suitable clothing during handling and application.
- Avoid skin and eye contact. If contact occurs, rinse immediately with clean water and seek medical attention if necessary.
- Refer to the BC PE Grout Safety Data Sheet (SDS) for full health and safety information.

### DISCLAIMER

The data presented in this sheet are based on laboratory testing and practical experience. Variations in substrate, application method, and environmental conditions may impact performance. Users are advised to carry out tests under their own conditions. Building Chemistry Industry's responsibility is limited to the product replacement in cases of proven manufacturing defect.

