



COSTARGROUT - C40

Costar Epoxy Baseplate Grouting System

PRODUCT DESCRIPTION

Costargrout - C40 represents a high-performance solution in baseplate grouting systems, characterized by its three-component composition, comprising solely of 100% solids. Crafted to withstand varying moisture levels, this epoxy-based formulation is meticulously engineered from a discerningly curated selection of raw materials, ensuring unparalleled consistency in product quality. Costargrout - C40 achieves optimal strength within a span of 24 hours post-application, facilitating expedited project timelines and operational efficiencies.

FEATURES

- Long working time.
- High vibration resistance.
- Fast strength gain.
- Low peak exothermic system for large pours.
- High effective bearing area.
- Excellent flow-ability and Non-Shrink grout.

ADVANTAGES

- Precision seating of baseplates.
- Precision grouting of wind turbine tower bases requiring rapid strength gain.
- Grouting under equipment, including heavy impact and vibratory
- machinery, reciprocating engines compressors, pumps, press, etc.
- Grouting for "pour-back" anchorage on post tensioning projects (e.g. segmental bridge).

USES

Costar Grout C40 is to be used/applied by trained professionals, However, Costar Grout C40 is normally used for high-strength grouting and the installation of:

- Fasteners
- Crash barrier posts
- Fence and railing posts

- Starter bars
- Anchors
- Tie rods
- Pre-Cast Concrete structures.

Under-grouting and bedding of heavy machineries and equipment such as;

- Mechanical joints on (road, bridge, deck types, etc.)
- Crane tracks
- Base plates
- Machine and seat bases for both light and heavy machinery (including heavy impact and vibratory machinery), reciprocating engines, compressors, pumps etc.
- Bridge bearings

SURFACE PREPARATION

Surface must be cleaned from a loose particles, dust, grease, oil, scale and rust. The curvatures/slopes on horizontal and vertical surfaces should be leveled with a bedding/Costar Repair Mortar.

MIXING INSTRUCTION

Pour the entire contents of Components 'A' & 'B' into an appropriate mixing vessel and mix for 30 seconds taking care not to entrain air during mixing. Do not over-mix. It is critical to the performance of the grout that there are no appreciable air bubbles in the resin. Slowly add the entire contents of Component 'C' and mix until uniformly blended (approx. 5 minutes).

APPLICATION

Pour the mixed grout into the prepared forms from one side only to eliminate air entrapment. Baseplate should have vent holes around periphery to prevent air pockets from developing. Maintain the liquid head to ensure intimate contact with the base plate. Plungers may be used to ease placement. Place sufficient epoxy adhesive grout in the forms to rise slightly above the underside of the base plate.



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TECHNICAL PROPERTIES

Packaging	3-component (A---- 4.71kg, B----- 1.59kg,---C -- 8.7kg) Total pack 15kg						
Component	Epoxy resin-based grout						
Shelf life	12 months from date of production						
Storage condition	Product must be stored in original, unopened, and undamaged sealed packaging in drycondition and temperature between +5 °C and +35 °C.						
Age (Days)	Consistence	Compressive Strength @23°C	Compressive strength @30°C	Compressive strength @40°C	Tensile Strength	Tensile Adhesion Strength	
1		~38 N/mm2	~48 N/mm2	~60 N/mm2	~14 N/mm2 (ASTM D638)	>40 N/mm2 (concrete failure) (slantshear) (ASTM C882)	
	Stiff	38	48	60			
	Plastic	34	44	56			
	Flowable	32	39	52			
3		~77 N/mm2	~86 N/mm2	~88 N/mm2	~10 N/mm2 (ISO 527)	~11 N/mm2(on steel) (ISO 4624, EN)	
	Stiff	77	86	88			
	Plastic	74	84	85			
	Flowable	71	79	82			
7		~90 N/mm2	~96 N/mm2	~97 N/mm2	~14 N/mm2 (ASTM C 307)	>3.5 N/mm2 (concrete failure) 1542,EN 12188)	
	Stiff	90	96	97			
	Plastic	88	93	95			
	Flowable	85	89	91			
28		~110 N/mm2	~112 N/mm2	~114N/mm2			
	Stiff	109	112	114			
	Plastic	107	109	111			
	Flowable	105	108	109			
Modulus of Elasticity in Flexure		~15 000 N/mm2		(EN 53452)			
Modulus of Elasticity in Tension		~15 000 N/mm2		(ASTM C580)			
Modulus of Elasticity in Compression		~19 000 N/mm2		(ASTM D695-96)			
Effective Bearing Area		>90 %		(ASTM C1339)			
Elongation at Break		0.75 % – 1.00 %		(ASTM D638)			
Thermal Compatibility		No delamination / pass		(ASTM C884)			
Coefficient of Thermal Expansion		2.3 x 10 ⁻⁵ 1/K (-30 °C min. / +30 °C max.)		(ASTM C531)			
Heat Deflection Temperature		+46 °C (7 d / +23 °C)		(ISO 75)			
Water Absorption		0.013 % (7 d) (coefficient W)		(ASTM C413)			



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TECHNICAL PROPERTIES

APPLICATION INFORMATION	
Ambient temp	+5 °C min. / +45 °C max
Dew point	Substrate temperature during application must be at least 3 °C above dew point to avoid condensation
Peak Exotherm	34.6 °C (at +23 °C) (ASTM D 2471)
Pot life	(200 g, adiabatic testing) / 165min@+20 °C and 130min@30 °C
Layer thickness	Minimum grout depth: 10 mm @ (10°~20°C) Maximum grout depth: 100 mm and 140 mm @ (20°~30°C)
Consumption	Approximately 154 packs/(m ³).

STANDARD COMPLIANCE

Conforms to the requirement of EN13888, ISO 13007-3, EN 12004-1

STORAGE AND SHELF LIFE

Protect from freezing, if frozen or crystallized, thaw gradually and stir to homogenous mixture. Shelf life in unopened original containers is 12 months when stored at 70°F (21°C).

- It is only important that during application and after application, standard safety procedures are done.
- Please consult current MSDS for product.
- *For Professional Use only.*

ADDITIONAL INFORMATION

Costarchem manufactures a complete range of construction chemical products which include:

- Concrete admixtures
- Waterproofing system
- Flooring system
- Cementitious and epoxy precision grouts
- Damp-proofing products
- Sealants and adhesives
- Repair and refurbishment systems

For more information on any of our products, please contact Costarchem global or regional office.

PRECAUTION

- Cold material may require chaining, rodding, and pushing during placement.
- For proper seating, allow grout to rise above the bottom of the base plate.
- Do not batch. Mix complete units.

HEALTH & SAFETY

- Please ensure that hand gloves and goggles are worn during installation
- Apply in ventilated areas, away from flames

LEGAL NOTE

The information and recommendations relating to the application of Costarchem products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with the stated recommendations in the product datasheets. Whilst Costarchem endeavors to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it. The user of the product must test the product's suitability for the intended application and purpose. Costarchem reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

