



Two-component Structural Repair

TCSR-555 is two component solvent free epoxy system for repairing cracked and damaged concrete structures. It is used for bonding of new structural concrete to old concrete, bricks & steel component as it gives excellent bonding properties with various construction surfaces.

APPLICATIONS

Excellent system for bonding of old to new concrete/mortar, repair old concrete structure and it can be extended further. It can be injected to seal damp & wet cracks more than 2mm by high-pressure injection and for better adhesion of concrete and steel.

ADVANTAGES

- It has excellent adhesion and strength on various construction substrates and easy to apply due to low mix viscosity.
- It has very low shrinkage and high open time.
- Easy to apply
- Free flowing
- Moisture insensitive.
- High density ensures complete water displacement.
- High mechanical strengths even after hardening under water.

RESITRICTION OF USES

Does not bond to polyethylene or polypropylene plastics. Applications should be restricted to the areas having short-term heat exposure of greater than 150°C and continuously wet areas or water immersion.

HOW TO USE

Surface Preparation

- Surface must be thoroughly cleaned and remove all loose particles, dirt, dust, laitance, oil grease etc by using wire brush, scrapping or grit blasting, pressurized air or water jet.

Holdfast grouting

- Take Part-A, Part-B & silica powder (100 mesh) in 2:1:8 ratio. In a pail mix Part-A & Part-B in the suggested ratio and mix with a slow speed mixture to avoid entrapping of air. Now charge Part-C and mix for 2-3 min until even colour is obtained. Do the masking of area in which grout is to be applied. Now pour material from one side to eliminate air entrapment.

Waterproofing

- Take resin and hardener as per mentioned ratio, mix thoroughly, apply the mix on clean and concrete surface. 1 kg material will cover 1sq mtr area in 1 mm thickness. Leave applied surface untouched for 24 hours. Apply second coat and sprinkle silica coarse sand, after drying lay of 1" thick layer of cement mortar to prevent the treated surface from the effect ultra violet rays.

Coverage

- 15-20 Sq.ft/kg per 2 coats @ 300 micron

Old concrete to new concrete bonding

- Take resin and hardener as per mentioned ratio, mix thoroughly and apply the mix on old concrete surface pour new concrete mix immediately over the area on which TRUBUILD TCSR 555 has been applied. Quartz and silica have been added as per requirement.

TECHNICAL DETAILS

PROPERTIES	STANDARD	RESULTS
PART-A		
Chemical Base		Epoxy Resin
Physical State		Viscous liquid
Appearance		Transparent
Color		Colorless
EEW	ASTM D-1652-11	170-190
Viscosity @25°C	ASTM D-4402	500-1000 cps
Sp. Gravity		1.15
PART-B		
Chemical Base		Polyamide hardener
Physical State		Viscous liquid
Appearance		Transparent
Color		Yellow
Amine value	IS 9162-1979	350-400
Viscosity @25°C	ASTM D-4402	8000-12000 cps
Sp. Gravity		0.98

TRUBUILD TCSR-555

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TECHNICAL DATA SHEET

VER NO. 1.5



TECHNICAL DETAILS

PROPERTIES	STANDARD	RESULTS
CURING PROPERTIES		
Mixing Ratio		100:50
Mix Viscosity @35°C	ASTM D 4402	500-1500 cps
Mix Viscosity @40°C	ASTM D 4402	2000-3000 cps
Mix Gravity		1.12 gm/cc
Potlife @ 30°C	Visual	150-180 min in 100 gm mix
Potlife @ 35°C	Visual	100-130 min in 100 gm mix
Hardening Time		12-15 hrs
Curing Time		24 hrs
Application temperature		10-35°C
Shore-D-Hardness	ASTM D 2240	60-65
Compressive Strength (After 24hr)	ASTM C 597	45 N/mm ²
Compressive Strength With Silica in 2:1:8 Ratio (After 7 day)	ASTM C 597	55 N/mm ²
Lap Shear strength (After 24hr)	—	70-100 kg/cm ²

STORAGE & HANDLING PRECAUTIONS

- Product should be stored in a dry place in their original, properly closed containers at temperature between 2-40°C. Partially emptied container should be closed immediately.

SHELF LIFE

24 months from date of manufacturing

PACKING

300 gm set, 1.5 kg set & 7.5 kg set

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