

Technical Bulletin # 6100

Bulletin Description

This bulletin compares the key physical properties and associated product information of the major 3-component epoxy grouts within the ITW Performance Polymers product offerings.

Physical Properties

	CHOCKFAST RED	CHOCKFAST RED SG	ESCOWELD 7505E/7530	CHOCKFAST RED HF
TECHNICAL BULLETIN	617	618	1612	1040
COMPRESSIVE STRENGTH ASTM C581 (MOD)	15,250 psi (105 MPa)	18,120 psi (124.9 MPa)	14,000 psi (96.5 MPa)	13,900 psi (95.8 MPa)
COMPRESSIVE MODULUS OF ELASTICITY ASTM C582	2,000,000 psi (13,793 MPa)	1,970,000 psi (13,582 MPa)	1,800,000 psi (12,411 MPa)	1,600,000 psi (11,000 MPa)
LINEAR SHRINKAGE ASTM D2566	Not Measurable	Not Measurable	0.036% (0.00036 in/in)	Not Measurable
COEFFICIENT OF LINEAR THERMAL EXPANSION 0°C-60°C (32°F- 140°F) ASTM D698	11.2 X 10 ⁻⁶ in/in/ °F (20.1 X 10 ⁻⁶ cm/cm/ °C)	10.8 X 10 ⁻⁶ in/in/ °F (19.4 X 10 ⁻⁶ cm/cm/ °C)	14.6 x 10 ⁻⁶ in/in/°F (25.2 X 10 ⁻⁶ cm/cm/ °C)	19.1 x 10 ⁻⁶ in/in/°F (34.4 x 10 ⁻⁶ mm/mm/°C)
FLEXURAL STRENGTH ASTM C582	4,025 psi (27.7 MPa)	4,800 psi (33 MPa)	4,700 psi (32.4 MPa)	5,200 psi (35.9 MPa)
FLEXURAL MODULUS OF ELASTICITY ASTM C582	2 X 10 ⁶ psi (13,793 MPa)	2.62 X 10 ⁶ psi (18,060 MPa)	-	1.55 x 10 ⁶ psi (10,700 MPa)
TENSILE STRENGTH ASTM D640	1,832 psi (12.6 MPa)	2,130 psi (14.6 MPa)	2,100 psi (14.5 MPa)	2,900 psi (20.0 MPa)
IZOD IMPACT STRENGTH ASTM D258	4.6 in.lb/in (0.02 N.m/mm)	-	-	-
FIRE RESISTANCE ASTM D637	Self-Extinguishing	Self-Extinguishing	Self-Extinguishing	Self-Extinguishing
SPECIFIC GRAVITY	2.06	2.24	2.00	2.05

Product Information

	CHOCKFAST RED	CHOCKFAST RED SG	ESCOWELD 7505E/7530	CHOCKFAST RED HF
COVERAGE PER UNIT	1.6 ft ³ (45.3L)	1.6 ft ³ (45.3L)	2.4 ft ³ (68L)	2.51 ft ³ (70.99L)
EFFECTIVE POUR RANGE*	2 - 18 in * (50 - 450 mm)	1 - 4 in * (25 - 100 mm)	1½- 18 in * (38 - 450 mm)	1 - 4 in * (25 - 100 mm)
CURE TIME (approximate)	54 hrs. @ 60°F (16°C) 36 hrs. @ 72°F (21°C) 24 hrs. @ 80°F (27°C) 18 hrs. @ 90°F (32°C)	24 to 48 hours @ 70° F (21° C)	48 hrs. @ 60°F (16°C) 36 hrs. @ 72°F (21°C) 24 hrs. @ 80°F (27°C) 12 hrs. @ 90°F (32°C)	54 hrs. @ 60°F (16°C) 36 hrs. @ 72°F (21°C) 24 hrs. @ 80°F (27°C) 18 hrs. @ 90°F (32°C)
POT LIFE	3 hours	1 hour	2 hours	2.5 hours
CLEAN UP	Water	Water	Water	High Pressure Water or solvent
PACKAGING PER Unit	Resin: 1.6 gal. (6.1 L) Hardener: 0.9 gal. (3.4 L) 4 Bags Aggregate 46 lb. (21 kg)	Resin: 2.4 gal (9.05 L) Hardener: 0.43 gal (1.63 L) 4 Bags Aggregate 46 lb. (21 kg)	Resin: 2.57 gal (9.7 L) Hardener: 1.12 gal (4.2 L) 5 Bags Aggregate 53 lb (24 kg)	Resin: 7.1 gal (26.9 L) Hardener: 2.64 gal (9.99 liters) 5 Bags Aggregate 50 lb (18.4 kg)
UNIT WEIGHT	207 lbs. (94 kg)	207 lbs. (94 kg)	305 lbs. (138 kg)	338 lbs. (153 kg)
SHELF LIFE	2 yrs. dry storage	2 yrs. dry storage	2 yrs. dry storage	1 yr. dry storage

* Individual pours may be performed outside of these limits with recommendations by highly experienced installers. Please consult your local representative of the Chockfast Worldwide distributor network or the ITW Technical Services team for an in-depth application review and recommendations.

NOTE: The physical properties quoted above are for laboratory prepared specimens. Tests on specimens from a job site may not be identical.

Date April 2019

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