

Technical Bulletin # 656H

Product Description

CHOCKFAST Gray (PR-610FR) is a specially formulated 100% solids, two component, inert filled compound developed for use in chocking non-precisely aligned equipment or in setting anchor bolts in concrete. The compound is designed to withstand severe marine and industrial environments involving a high degree of both physical and thermal shock. The compound is non-shrinking, non-burning and has a very high impact and compressive strength. Years of successful experience have shown the use of PR-610FR to be a far superior yet less expensive method of establishing and retaining equipment alignment under extreme conditions. When poured as a continuous chock under deck equipment, CHOCKFAST Gray provides a corrosion proof moisture seal. PR-610FR is approved or accepted for marine use by A.B.S., Coast Guard, Lloyd's Register and other regulatory agencies.

Use & Benefits

CHOCKFAST GRAY was developed as a chocking compound for use under marine deck machinery, pumps, generators and steering gears. Industrially, the compound is used under diesel engines, generators, compressors, pumps, turbines, bearing blocks, crane rails and numerous other applications. It is also used extensively in the setting of anchor bolts into concrete.

When used as a chocking compound for machinery, the CHOCKFAST Gray provides perfectly even support without the tedious hand packing associated with conventional cement grouts. Because the compound flows readily, much thinner cross sections can be used. The compound is also completely chemical and oil resistant, will not powder or crack with age, weathering, or freeze-thaw cycling, and will seal the mounting surfaces protecting them from deterioration. Steel soleplates and rails between the machinery and the concrete foundations are not necessary with CHOCKFAST Gray.

Other successful applications of CHOCKFAST GRAY include mounting of crane rails, chocking of crane bull gears, chocking of machine shop machinery, sealing of cable penetrations, and as a filler to dampen machinery vibrations.

Design Considerations

CHOCKFAST Gray may be used where equipment alignment does NOT have to be maintained precisely AND the equipment's normal operating temperature is below 125°F (52°C). Examples of this class of machinery include winches, pumps, skid mounted diesel generators and other self-contained equipment. CHOCKFAST Gray works best when poured at a depth of between ½" to 2" (12 mm to 50 mm). Please consult your CHOCKFAST distributor or ITW Philadelphia Resins if you need to pour CHOCKFAST Gray outside of these limits.

Application Instructions

CHOCKFAST Gray requires no special tools or special skills as does chocking with steel. When cast, CHOCKFAST GRAY flows readily into chock area filling all voids and conforming to all irregularities. This eliminates the machining of base plates or foundations for a perfectly fitted chock.

To facilitate mixing and pouring, store CHOCKFAST Gray at 68° to 77°F (20° to 25°C) for 12 to 24 hours prior to mixing. Pour the entire contents of the hardener container into the resin container and power mix using a Jiffy Mixing blade at 250 to 450 RPM for 3 to 5 minutes. Scrape the side and bottom of the container with the mixing blade. Do not allow air to be drawn into the mixture.

Precondition the surrounding metal and/or concrete surfaces to at least 55°F (13°C). Pour the mixed CHOCKFAST Gray into the overpour area of one end of a prepared mold. Allow the epoxy to flow under the mounting foot, pushing the air out ahead of it. Fill the overpour to at least 1/2" (12mm) above the mounting foot at the highest point in the chock. Do not scrape epoxy from the sides or bottom of the container when pouring.

Physical Properties

COMPRESSIVE STRENGTH	16,000 psi (1,125 kg/cm ²)	ASTM C-695
COMPRESSIVE MODULUS OF ELASTICITY	520,000 psi (36,568 kg/cm ²)	ASTM C-695
LINEAR SHRINKAGE	0.0003 in/in (0.0003 mm/mm)	ASTM D-2566
COEFFICIENT OF LINEAR THERMAL EXPANSION	16.8 x 10 ⁻⁶ /F° @ 32°F to 140°F (30.3 x 10 ⁻⁶ /C° @ 0°C to 60°C)	ASTM D-696
FLEXURAL STRENGTH		ASTM C-582
FLEXURAL MODULUS OF ELASTICITY		ASTM C-582
TENSILE STRENGTH	4,000 psi (281 kg/cm ²)	ASTM D-638
IZOD IMPACT STRENGTH	7.2 in.lbs./in. (0.32 N-m/cm)	ASTM D-256
FIRE RESISTANCE	Self-extinguishing	ASTM D-635
SERVICE TEMPERATURE	Up to 52°C (125°F)	
VIBRATION RESISTANCE	Pass 33 cps @ 0.02 in. (0.51mm) amplitude Total cycles 237,600	
THERMAL SHOCK RESISTANCE	Pass 20°F to 200°F (- 6.5°C to + 93°C)	
CORROSION RESISTANCE	Pass FTM 151A @ 96 hrs. 0.5% NaCl 96°F (35°C) Fog	
SPECIFIC GRAVITY	1.82	
HARDNESS	35-40	ASTM D-2583

Product Information

UNIT COVERAGE:	Small Unit - 187 cu.in. (3.06 liters) Large Unit - 816 cu.in. (13.37 liters)
APPLICATION TEMPERATURE	55°F (13°C) to 95°F (35°C)
UNIT WEIGHT:	<u>Small Unit:</u> Resin (NH) – 12.5 lbs. (5.6 kg), 0.76 gal (2.9 L) in a 1 gal can, Hardener (H) – 0.6 lbs., (0.3 kg), 0.3 L (9 oz) in an 8 oz plastic bottle <u>Large Unit:</u> Resin (NH) – 53.5 lbs. (24.3 kg), 3.2 gal (12 L) in a 5 gal bucket, Hardener (H) – 2.6 lbs. (1.2 kg), 40 oz (1.2 L) in a ½ gal can
UNIT SHIPPING WEIGHT	Small Unit: 5.9 kg (13 lbs), Large Unit: 56 lbs. (25.5 kg)
CURE TIME (approximate):	18 hrs. @ 85°F (30°C) 24 hrs. @ 65°F (18°C)
POT LIFE:	30-40 mins. @ 70°F (21°C)
SHELF LIFE:	2 Years
CLEAN UP:	IMPAX IXT-59 Solvent or equal

Reference

For design considerations and application details please request Bulletin No. 692 or contact ITW Philadelphia Resins' Engineering Services Department.

Date 01/2012

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