

Technical Bulletin # 656G

## Product Description

CHOCKFAST Gray (PR-610FR) is a specially formulated 100% solids, two component, inert filled casting compound developed for use as a chocking or grouting material. 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 precise 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 or grouting 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.

When used as a grouting 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 and grouting of precision milling machinery and sealing of cable penetrations.

## 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 52°C (125°F). 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 12 mm and 50 mm (½" to 2"). 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 20o to 25oC (68o to 77oF) 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 13oC (55oF). 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 12mm (1/2") 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.

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## Physical Properties

COMPRESSIVE STRENGTH	1,125 kg/cm <sup>2</sup> (16,000 psi)	ASTM C-695
COMPRESSIVE MODULUS OF ELASTICITY	36,568 kg/cm <sup>2</sup> (520,000 psi)	ASTM C-695
LINEAR SHRINKAGE	0.0003 mm/mm (0.0003 in/in)	ASTM D-2566
COEFFICIENT OF LINEAR THERMAL EXPANSION	30.3 x 10 <sup>-6</sup> /C° @ 0°C to 60°C (16.8 x 10 <sup>-6</sup> /F° @ 32°F to 140°F)	ASTM D-696
FLEXURAL STRENGTH		ASTM C-582
FLEXURAL MODULUS OF ELASTICITY		ASTM C-582
TENSILE STRENGTH	281 kg/cm <sup>2</sup> (4,000 psi)	ASTM D-638
IZOD IMPACT STRENGTH	0.32 Newton m/cm (7.2 in.lbs./in.)	ASTM D-256
FIRE RESISTANCE	Self-extinguishing	ASTM D-635
SERVICE TEMPERATURE	Up to 52°C (125°F)	
SHOCK RESISTANCE	Pass MIL-S-901C (Navy) High Impact Shock Test, Grade A, Type A, Class 1	
VIBRATION RESISTANCE	Pass 33 cps @ 0.51mm (0.02 in.) amplitude Total cycles 237,600	
THERMAL SHOCK RESISTANCE	Pass -6.5°C to +93°C (20°F to 200°F)	
CORROSION RESISTANCE	Pass FTM 151A @ 96 hrs. 0.5% NaCl 35°C (96°F) Fog	
SPECIFIC GRAVITY	1.82	
HARDNESS	35-40	ASTM D-2583

## Product Information

UNIT WEIGHT:	Small Can – 5 kg (11 lb.) Large Pail – 21.7 kg (48 lb.)
UNIT COVERAGE:	Small Can - 3.06 liters (187 cu.in.) Large Pail - 13.37 liters (816 cu.in.)
CURE TIME (approximate):	18 hrs. @ 30°C (85°F) 24 hrs. @ 18°C (65°F)
POT LIFE:	30-40 mins. @ 21°C (70°F)
SHELF LIFE:	18 MONTHS
CLEAN UP:	PRT-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** 08/2005

**General:** Every reasonable effort is made to insure the technical information and recommendations on these data pages are true and accurate to the best of our knowledge at the date of issuance. However, this information is subject to change without notice. Products and information are intended for use by qualified applicators that have the required background, technical knowledge, and equipment to perform said tasks in a satisfactory manner.

**Warranty:** ITW Philadelphia Resins, a division of Illinois Tool Works Inc., warrants that its products meet their printed specifications. This is the sole warranty. This warranty expires one year after product shipment.

**Warranty Claims:** If any product fails to meet the above, ITW Philadelphia Resins will, at its option, either replace the product or refund the purchase price. ITW Philadelphia Resins will have no other liability for breach of warranty, negligence, or otherwise. All warranty claims must be made in writing within one year of the date of shipment. No other claims will be considered.

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Suggestions concerning the use of products are not warranties. The purchaser assumes the responsibility for determining suitability of products and appropriate use. ITW Philadelphia Resins' sole liability, for breach of warranty, negligence or otherwise, shall be the replacement of product or refund of the purchase price, at ITW Philadelphia Resins' election. Under no circumstances shall ITW Philadelphia Resins be liable for any indirect, incidental or consequential damages.

**Modification of Warranty:** No distributor or sales representative has the authority to change the above provisions. No change in the above provisions will be valid unless in writing and signed by an officer or the Technical Director of ITW Philadelphia Resins. No term of any purchase order shall serve to modify any provision of this document.

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