

Technical Bulletin # 646D

## Product Description

PHILLYBOND ORANGE is a two component, epoxy paste, developed for sealing exposed edges of CHOCKFAST in stern tube applications. It is resistant to sea water and lubricating oils. It has good adhesive strength and flexibility over a wide temperature range. Because of its paste-like consistency, it can be applied in thick, vertical applications without sagging, yet is easy to trowel and provide a smooth finished surface.

## Use & Benefits

Excellent for sealing any type gap where both mechanical and thermal expansion and contraction will take place. It adheres well to steel, brass, and other epoxies and epoxy chocking materials.

## Application Instructions

The adhesion of PHILLYBOND ORANGE is dependent upon a clean, dry surface. All grease, rust, scale, and paint should be removed from the surface before application. The preferred procedure is to solvent wipe the surface using Xylene or IXT- 59 Solvent, sand or grind the area, and then repeat the solvent wipe. Clean rags saturated with the solvent should be used.

Phillybond Orange may be applied to steel surfaces coated with ITW Polymer Technologies Rust Inhibitive Primer.

Take special precaution applying Phillybond Orange to surfaces that once had Silicone applied to them. Phillybond Orange will NOT stick to those surfaces unless the Silicone is completely removed. The only way to completely remove Silicone is to burn it off using a small torch.

## Physical Properties

TENSILE STRENGTH	45 kg/cm <sup>2</sup> (640 psi)	ASTM D 638
ADHESIVE STRENGTH	On Steel - 40 kg/cm <sup>2</sup> (567 psi) On Brass - 35 kg/cm <sup>2</sup> (500 psi) On CHOCKFAST Orange - 39.5 kg/cm <sup>2</sup> (563 psi)	
LAP SHEAR ON STEEL	30 kg/cm <sup>2</sup> (424 psi)	ASTM D 1002
ELONGATION	37.5%	
VISCOSITY, MIXED	464 000 cps (Paste Consistency)	
MIXING RATIO	By Volume 1 : 1	

## Product Information

COLOR:	Resin - Orange Hardener - Amber Mixed - Orange
POT LIFE:	3 hours at 70°F (21°C)
CURE TIME:	36 hours at 70°F (21°C) - Gel 5 hours 48 hours at 60°F (15°C) - Gel 7 hours
SHELF LIFE:	2 years
PACKAGING:	Resin (NH) – 4.6 lbs. (0.46 gal) Hardener (H) - 3.8 lbs. (0.44 gal)
UNIT WEIGHT	Shipping Wt. 13 Lbs. (5.9 Kg) 3.8 liters (1 gal.) unit

## ITW POLYMER TECHNOLOGIES

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**Reference**

For design considerations and application details please request Bulletin No. 632 or contact ITW Polymer Technologies' Engineering Services Department.

**Date**

06/2006

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