

Technical Bulletin # 1612D

## Product Description

ESCOWELD 7505E/7530 is a highly flowable, epoxy grout system engineered for use with dynamically - operated industrial machinery and equipment where performance and operating reliability are crucial. ESCOWELD grout functions as a critical interface between the equipment and its foundation ensuring proper transference of static and dynamic loads generated by operating equipment to the foundation. This allows the foundation to efficiently absorb and dissipate the loads true to its purpose.

ESCOWELD Epoxy Grout provides proper support for the operating equipment. When coupled with a properly designed anchoring system, ESCOWELD grout maintains critical shaft alignment fundamental for optimum performance of rotating and reciprocating equipment.

ESCOWELD 7505E/7530 also offers improved resistance to many industrial chemicals that would typically destroy conventional cement grouts. A foundation too, is subject to chemical attack. If the foundation mass is reduced by chemical attack, so is its effectiveness as a support and damping mechanism. Using guidelines available from ITW Philadelphia Resins, ESCOWELD grout can also be used to protect concrete foundations from chemical attack that would otherwise deteriorate as a result.

## Use & Benefits

The key to the performance of ESCOWELD 7505E/7530 is the combination of ESCOWELD 7505E, a versatile liquid epoxy resin/hardener system, with ESCOWELD 7530, a engineered silica aggregate specifically designed for greater flowability, strength and self-leveling characteristics. Other unique features and benefits that have been offered for over 20 years with ESCOWELD 7505 include:

- Excellent bondability to itself without surface preparation to simplify multiple pour projects.
- Wide range of depth of pour, from 1-1/2" to 18". This simplifies and speeds up many jobs that would otherwise have required multiple pours and additional surface preparation.
- Cures in 24 hours which is especially valuable during tight turn-around schedules or emergency repairs.
- Exceptional dimensional stability as well as excellent resistance to chemical and physical degradation.
- Negligible shrink on cure.

## Design Considerations

For optimum results, follow the recommendations closely for site preparation, grout mixing, grout placement, and grout finishing, etc. found in "ESCOWELD 7505E/7530 Installation Procedures, Bulletin No. 1600.

## Application Instructions

The performance of any epoxy machinery grout system depends not only on the engineering and physical characteristics of the cured grout, but also on the quality of the mixing and installation. Proper mixing of all components is particularly important in obtaining the maximum strength and adhesive characteristics of epoxy grouts.

- ESCOWELD 7505E is packaged in a single can. Lower portion contains Epoxy Resin and upper portion contains the converter. Pour entire contents of converter into the Epoxy Resin container and mix properly.
- Mix ESCOWELD 7530 aggregate into combined liquid components in a wheelbarrow or mechanical mixer (mortar/plaster mixer) until all dry particles are wetted out.

## Physical Properties

COMPRESSIVE STRENGTH	14,000 psi (984 kg/cm <sup>2</sup> ) (Actual field strength may vary, from 10,000 to 14,000 psi depending on curing and testing conditions)	ASTM C-579 MODIFIED
COMPRESSIVE MODULUS OF ELASTICITY	1.8 x 10 <sup>6</sup> psi (1.26 x 10 <sup>5</sup> kg/cm <sup>2</sup> )	ASTM C-579
LINEAR SHRINKAGE	0.036% (.00036 in/in)	ASTM D-2568
COEFFICIENT OF LINEAR THERMAL EXPANSION	26.2 1 x 10 <sup>-6</sup> / °C @ 0°C to 60°C (14.6 x 10 <sup>-6</sup> / °F @ 32°F to 140°F)	ASTM C-531
FLEXURAL STRENGTH	4,700 psi (329 kg/cm <sup>2</sup> )	ASTM C-580
FLEXURAL MODULUS OF ELASTICITY	1.8 x 10 <sup>6</sup> psi (1.26 x 10 <sup>5</sup> kg/cm <sup>2</sup> )	ASTM C-579
TENSILE STRENGTH	2,100 psi (147 kg/cm <sup>2</sup> )	ASTM D-307
ADHESIVE BOND TO STEEL	2,100 psi (147 kg/cm <sup>2</sup> )	ASTM C-307
IZOD IMPACT STRENGTH		ASTM D-258
FIRE RESISTANCE	Self Extinguishing	ASTM D-637
SERVICE TEMPERATURE	Up to 140°F (60°C)	
SPECIFIC GRAVITY		
DENSITY	125 lbs/cu ft (1948 kg/cu meter)	

## Product Information

COVERAGE	2.4 cu.ft. (68 liters)
APPLICATION TEMPERATURE	55°F To 90°F (13°C to 32°C)
CURE TIME (approximate)	12 hours @ 90°F (32°C) 24 hours @ 80°F (27°C) 36 hours @ 70°F (21°C) 38 hours @ 60°F (16°C)
POT LIFE	2 Hours @ 77°F (25°C)
CLEAN UP	Water or IMPAX IXT-59 Solvent
UNIT PACKAGING	Resin (NH): 2.6 gal (9.8 L) in a 5 gal bucket Hardener (NH): 1.2 gal (4.6 L) in a plastic tray inserted into the top of the resin can Aggregate: (5) 53 lb. (24 kg) bags
UNIT WEIGHT	Resin: 25.7 lbs (11.7 kg) Hardener: 10.2 lbs (4.2 kg) Aggregate: 265 lbs (120 kg)
SHIPPING WEIGHT	305 lbs (138 kg)
SHELF LIFE	2 years

**Date** 09/2005

**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.  
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