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Technical Bulletin

Armorgard 604T - K-604T

Description:

604T is a 100 % solids, chemically resistant, odorless, troweled epoxy flooring system. This material was designed for low temperature applications to insure a convenient handling and short walk-on time at temperatures as low as 20 °F. 604T provides outstanding protection, for new or old damaged concrete, against a wide range of severe mechanical abuses found in today's industrial environments. Adhesion to wood, concrete and most metals is excellent.

604T was designed to protect floors from heavy industrial traffic (specifically, steel-wheeled carts and forklift trucks) making it ideally suited for chemical processing, power plants, pulp and paper mills, utilities and anywhere a clean, tough floor is needed.

Product Advantages:

- EXCELLENT IMPACT RESISTANCE
- SUBZERO (20 °F) CURE
- 100 % SOLIDS
- EXCELLENT WEAR RESISTANCE

FULL CURE (FOR CHEMICAL IMMERSION), h

FAST WALK-ON TIME

Application Guidelines:

Application thickness can be varied from 1/4" to 1/2" troweled topping.

Handling Properties:

COMPONENTS	Resin/Hardener/Aggregate Gray, Red, Natural Trowelable Mortar	
AVAILABLE COLORS		
CONSISTENCY		
APPLICATION TEMPERATURE	20°F minimum	
COVERAGE, @ 1/4"	15 ft² per 44 pound kit	
<u>APPLICATION TEMPERATURE</u>	<u>20 °F</u>	<u>72 °F</u>
WORKING TIME, min	30	10
GEL TIME, min	60	25
INITIAL CURE OR FOOT TRAFFIC TIME, h	16	1
FULL TRAFFIC. h	24	2

Physical Properties:

SHORE HARDNESS, Scale D	92	ASTM D 2240
ADHESION TO CONCRETE, psi	> 500 (100 % failure in concrete)	
(Tested with K-049 primer)		
COMPRESSIVE STRENGTH, psi	12,800	ASTM D 695
TENSILE STRENGTH, psi	2,000	ASTM D 638
FLEXURAL STRENGTH, psi	4,400	ASTM D 790

48-72

24

Surface Preparation:

604T is used to strengthen and seal a porous concrete substrate, therefore, adhesion is paramount. To achieve excellent adhesion, the substrate should be free of all loose and foreign material and should be roughened slightly to provide a coarse profile by shot blasting.

Before shot blasting any contaminates on/in the concrete must be identified. Oils, grease, fats, waxes, or other contaminates must be removed prior to roughening the concrete.

Shot blasting using self-propelled, self-contained equipment is the recommended preparation method.

NEW CONCRETE MUST CURE A MINIMUM 28 DAYS PRIOR TO THE APPLICATION OF ANY EPOXY. CONCRETE MUST BE TESTED FOR MOISTURE AND VAPOR TRANSMISSION BEFORE APPLICATION.

Mixing:

To insure a convenient working time store all kits of 604T below 32 °F at least 4 h. For larger kits store them 6-8 h below 32 °F. The preconditioning step is not required if your application does not require longer working time. Please note this material will gel rapidly at temperatures above 40F and will require an experienced user.

To mix 604T pour the contents of the can marked Hardener into the larger Resin can. Immediately mix for 2-3 minutes using a Jiffy Mixer and a slow speed drill. Mix at slow speed (less than 500 rpm) to avoid air entrainment. DO NOT mix more material than can be used within the stated working time. Add this liquid to a rotating pail mixer and add half of the troweling aggregate, let mix for 1-2 minutes, then add the remaining troweling aggregate, mix for 2-3 minutes.

604T, before it has hardened, can be removed from tools with isopropyl alcohol, acetone or mineral spirits.

Application:

For ultimate adhesion the concrete floor may be primed with 604 liquids.

Immediately pour out the mixed kit onto the floor in 7-10" wide strips. Spread evenly with a clean trowel (steel finishing trowel, 3×14). Finish each kit before mixing another to insure proper working times and surface textures. As the material begins to set up the trowel will pull on the surface creating a porous surface, this can be corrected by cleaning the trowel with isopropyl alcohol or acetone.

The cured surface of 604T may be slightly oily by touch. To make it tack-free wash the surface with isopropyl alcohol using a stiff brush or grind it.

Packaging:

604T is conveniently packaged in pre-measured (15 ft² @ 1/4") 3 component kits, containing a resin (Part A), hardener (Part B), and a troweling aggregate (Part C). The troweling aggregate is supplied in pre-measured bags. Larger bulk quantities are also available.

SAFETY PRECAUTIONS

604T is an epoxy resin system. Please refer to the safety data sheets prior to using this product. Use soft rubber wheels on any vehicle that will be traveling on the floor; this will reduce scuffing and abrasion marks. DO NOT WELD ON OR NEAR THE HARDENED EPOXY, HAZRDOUS FUMES WILL BE RELEASED.

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