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ASTM D 412

Technical Bulletin

Flex Form 70 - K-170

Description:

FLEX FORM 70 is a 100% solids, self-leveling, primerless, odorless epoxy formliner/ molding compound. The product cures to a semi-rigid rubber-like resiliency which provides excellent toughness and mold life. The low viscosity of FLEX FORM 70 allows architectural pre-casters to design and form the most intricate patterns.

Product Advantages:

- 100 % SOLIDS / SOLVENT FREE
- V.O.C. FREE
- SIMPLE MIX RATIO (1-1)
- LOW ODOR

ELONGATION @ Break, %

MOISTURE INSENSITIVE

Application Guidelines:

Proper mold preparation must be done to insure a successful cast. Wood or porous templates must be sealed before use. Copps Armorgard 505 Form Coating is recommended to seal the templates. Apply a quality wax to all surfaces of the pattern. Polish the wax to a high gloss (hardening the surface). Apply a high quality mold release agent. Immediately pour the FLEX FORM 70 into the pattern.

Handling Properties:

Physical Properties:

MIX RATIO	1-1 by volume	
COLOR	Light Grey	
MIXED VISCOSITY, cps	3,000	ASTM D 2196
WORKING TIME @ 72 °F, minutes	40	
GEL TIME @ 72 °F, minutes	60	
COVERAGE DE-MOLD TIME @ 72 °F @ 150 °F	21.8in³ / lb. 43.6in² / lb. @ ½ in thick 4 hours (minimum) 2 hours (minimum) (varying with mold size)	
HARDNESS, SHORE A	70	ASTM D 2240
TENSILE STRENGTH, psi	440	ASTM D 412

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Mixing:

Mix the resin (Part A) and the hardener (Part B) for 2-3 minutes with a slow speed (500 rpm or less) drill and Jiffy mixer (mixing paddle). If you need less than a full kit, do not attempt to "eyeball" the mixture. Accurately measure the resin (1 part) and hardener (1 part) by volume.

FLEX FORM 70 has a work life of 40 minutes at 72 °F.

Curing Procedures:

Temperature below 50 °F will inhibit the cure, resulting in a sticky surface. The material should be stored at 60-90 °F prior to use. The flash point of FLEX FORM 70 is above 200 °F. This product does not contain the dangerous isocyanates. FLEX FORM 70 is not moisture sensitive. Opened or partially used containers do not need to be nitrogen covered. Simply close the cover and re-use as needed.

SAFETY PRECAUTIONS

FLEX FORM 70, before it has hardened, can be removed from tools with Copps Enviro- Kleen solvent or isopropyl alcohol.

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD ON, BURN OR TORCH ON OR NEAR, ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.**

Avoid skin or eye contact. Wash skin with soap and water if contact occurs. If eye contact occurs flush with water for 15 minutes and obtain medical attention. Read and understand all cautions on can labels and safety data sheets before using this material.

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