COLTECH F 600

TECHNICAL DATA SHEET
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Hard Elastic Polyurethane Filter Resin / Adhesive
Non Foaming

Product description

COLTECH F 600 is a two component, solvent free, semi-rigid, polyurethane filter production Resin / Adhesive.
It provides excellent adhesion, impact resistance, durability and chemical resistance properties with minimum shrinkage.
COLTECH F 600 can be applied manually or by plural component mixing and dispensing equipment.

Cures by reaction (cross linking) of the two components even at very low temperatures.

Advantages

- Solvent free
- Suitable to be used as cold adhesive (Tinplate finished Filters) or as cold casting resin (PU finished Filters)
- Shore A 85
- Non-foaming
- Variable pot life depending on requirement
- Cold curing
- Excellent adhesion on various materials
- High impact strength
- Water, Oil, Fuel and Lubricant resistant
- Over 20 years of positive feedback worldwide.

Uses

The COLTECH F 600 is a cold applied, non-foaming, Polyurethane adhesive for production of Tinplate finished Filters:

- Oil Filters
- Fuel Filters
- Hydraulic Filters
- Industrial Filters

The COLTECH F 600 is also suitable for casting applications for production of PU resin finished Filters.

Colors

The COLTECH F 600 is supplied in off-white and black.
Other colors supplied upon request.

Technical Data *

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane Resin + Hardener. Solvent free.	
Mixing Ratio	A : B = 5 :1 by weight	
Hardness (Shore A Scale)	85 + 5	ASTM D 2240
Solids Content	100 %	ASTM D 2369
Temperature Strength	100ºC (Fully cured)	IN HOUSE LAB
Low Temperature Brittleness	-40º C (Fully cured)	ASTM D 7028
Density (A+B component mixture)	1,60 gr/ml	ASTM D 1475, ISO 2811-1
Pot Life *	Available in quick setting (1min pot life) and long setting (10min pot life) *.	Conditions:20ºC,50%RH
Removal Time from mold *	5-60 minutes *	
Initial Curing Time *	1-24 hours *	
Final Curing time	7 days	

* Pot Life / Removal Time from mold / Initial Curing Time can be adjusted according production requirements with the addition of Catalyst (accelerator).

Chemical Properties

Water	+	Lubricants	+
Potassium hydroxide 5%	+	Unleaded fuel	+
Sulfuric acid 5%	+	Diesel fuel	+
Salt water 20%	+	Xylene	+
Hydraulic Fluid	+	DMSO	-
Engine Oil	+	N-Methyl pyrrolidone	-
{+ stable, - unstable, ± stable for a short period.}			

Application

Surface Preparation
Before adhering, make sure that all surfaces to be used are free of any trace of moisture (Maximum surface moisture content should not exceed 4%). Also make sure that the surface is not contaminated with oils, grease, dust, lubricants, release agents and other impurities that could prevent the adhesion.

Manual Mixing & Application
Stir COLTECH F 600 Component A well before using. Stir COLTECH F 600 Component B well before using.

COLTECH F 600 Component A and Component B should be mixed by low speed mechanical stirrer, according to the indicated mixing ratio in this technical data sheet, for about 1-3 min if applied manually. Both parts (Component A and Component B) have to be mixed at a temperature higher than 18°C.

ATTENTION: The mixing of the components has to be effected very thoroughly, especially on the walls and bottom of the pail until the mixture becomes fully homogeneous.

Apply COLTECH F 600 adhesive with a trowel, brush or dispensing equipment to the one surface to be adhered and place the other on top. Contain adhered object by pressing and allow curing.

ATTENTION: Please ensure consumption within the Pot Life and adhesion (pressing) within Open Time.
ATTENTION: Never use if the viscosity of the adhesive/resin is starting to rise (sign that the end of the Pot Life is reached).
RECOMMENDATION: Before use or change in surface to be adhered make an adhesion test to make sure that adhesion is optional.
RECOMMENDATION: Use heated press (@40-45^{o}C) to accelerate curing and το reduce removal time from press.

Plural Component Machine Mixing & Dispensing
Set the plural component machine for both parts (Component A and Component B) at a temperature higher than 18°C. Make sure that the Component A is constantly under low speed (50-100 RPM) agitation.
Adjust the mixing ratio of the plural component machine to the indicated mixing ratio of the product. Apply and press as described above.

Acceleration
If the Pot life of the adhesive is to be adjusted to production needs, add the recommended quantity of the COLTECH C 299 catalyst / accelerator (from 0,01 to 0,2%) into the COLTECH F 600 Component A and mix well, for about 3 min, by low speed mechanical stirrer. Allow mixture to rest for 5-10 minutes. Following to that add the COLTECH F 600 Component B as described above, and use.

Packaging
Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5^{0}-30^{0}C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number, and application precaution labels.

Safety measures
Please study the Material Safety Data Sheet. **PROFESSIONAL USE ONLY**