

COLTECH F 650

TECHNICAL DATA SHEET
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Foaming Polyurethane Filter Resin / Adhesive

Product description

COLTECH F 650 is a foaming, two component, solvent free, elastic, polyurethane filter production Resin / Adhesive. It provides excellent adhesion, impact resistance, uniform foaming, excellent skin forming, durability and chemical resistance properties with minimum shrinkage. COLTECH F 650 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.

Uses

The COLTECH F 650 is a specialized foaming Polyurethane resin / adhesive for production of :

- Air Filters
- Industrial Filters

Advantages

- Solvent free
- Shore A 30
- 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.

Consumption

0,5 - 0,6 kg/liter volume (expanded) to be filled

Colors

The COLTECH F 650 is supplied in orange and black. Other colors available on demand.

Technical Data *

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane Resin + Hardener. Solvent free.	
Mixing Ratio	A : B = 100 : 17 by weight	
Hardness (Shore A Scale)	30 + 5	ASTM D 2240
Solids Content	100 %	CALCULATED
Temperature Strength	80°C (Fully cured)	IN HOUSE LAB
Low Temperature Brittleness	-40° C (Fully cured)	IN HOUSE LAB
Pot Life *	Available in quick setting (1min pot life) and long setting (10min pot life).	Conditions:20°C,50%RH
Removal Time from mold *	5-60 minutes	
Curing Time *	1-24 hours	
Final Curing time	7 days	

* Pot Life / Open Time / Depressing 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.}			

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Application

Mould Preparation

Before casting check that parts or moulds are free of any trace of moisture (Maximum surface moisture content should not exceed 4%). Before the application of the COLTECH F 650, make sure that the mould to be used has been coated with a suitable liquid-applied mould release agent as the COLTECH E 499 to avoid bonding with the mould.

Manual Mixing & Application

Stir COLTECH F 650 Component A well before using. Stir COLTECH F 650 Component B well before using.

COLTECH F 650 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 2-3 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 650 foam resin / adhesive manually or dispensing equipment into the mold (rotating) and place the filter paper inside. Allow resin to expand (foam) until sufficient strength and remove from mould.

ATTENTION: Please ensure consumption within the Pot Life and adhesion (pressing) within Open Time.

ATTENTION: Never use if the viscosity of the adhesive 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 (@40-45oC) to accelerate curing and lower 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 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 0,05 to 0,2%) into the COLTECH F 650 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 650 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^o-30^oC. 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**

Our technical advice for use, whether verbal, written or in tests, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /or application technology in question meets the specific requirements and purposes. We are liable only for our products being free from faults; correct application of our products therefore falls entirely within your scope of liability and responsibility. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery. Users are responsible for complying with local legislation and for obtaining any required approvals or authorizations. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice.