



**POLYCOAT
PRODUCTS**
A Division of American Polymers Corp.

THEMECOAT™ 1752-FR
*Fire Retardant, Two Component
Aromatic Hybrid
Polyurethane Hard Coat
Technical Data Sheet*

DESCRIPTION

Themecoat™ 1752-FR is a fire retardant (meets ASTM E-84 Class 1/Class A requirement), fast set, rapid curing, aromatic, two component, hybrid polyurea/polyurethane spray designed to be applied over EPS, wood and many other surfaces. It's excellent balance of stiffness and impact resistance provides excellent plastic "shell-like" protection for delicate foams and EPS. Themecoat™ 1752-FR's chemical design allows fast "user-friendly" application with excellent flow and appearance.

FEATURES

- ❖ Meets ASTM E-84 Class 1 Fire Test Requirements
- ❖ Plastic "Shell-Like" Protection
- ❖ 100% Solids
- ❖ Zero VOC
- ❖ Low Shrinkage
- ❖ Excellent Thermal Stability
- ❖ Fast Cure
- ❖ Excellent Chemical Protection
- ❖ High Productivity
- ❖ Excellent Cold Temperature Impact

TYPICAL USES

- ❖ EPS Hard Coat Surface Protection
- ❖ Class 1 where Class A is Needed
- ❖ Decorations
- ❖ Architectural Shapes

COLORS

Neutral. Custom colors are available upon request.

PACKAGING

100 gallon kit: One 50 gallon drum of Part-A and one 50 gallon drum of Part-B.

COVERAGE

Themecoat™ 1752-FR should be applied in thin passes to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

SURFACE PREPARATION

Remove all contaminant, oil and grease from substrate.

MIXING

Themecoat™ 1752-FR may not be diluted under any circumstances. Thoroughly mix Themecoat™ 1752-FR Part-A and Part-B Base material with air driven power equipment until a homogeneous mixture and color is obtained.

EQUIPMENT CLEANUP

Equipment should be cleaned with an environmentally safe, urethane-grade solvent (alcohol free) as permitted under local regulations immediately after use.

TECHNICAL DATA

Mix Ratio by Volume	1A : 1B
Pot Life	10-15 seconds
Tack Free Time	90-150 seconds
Recoat Time	0-6 hours
Viscosity at 150-160°F (66.5-71°C), Brookfield:	
Part-A	250 ± 20 cps
Part-B	4000 ± 200 cps
Density (Side A & B Combined)	
Flash Point	>200°F >93.3°C
Hardness, ASTM D-2240	75 ± 5 D
Tensile Strength, ASTM 412-C	1600 ± 200 psi 23.4 ± 1.4 MPa
Elongation, ASTM 412-C	15% ± 5%
Tear, ASTM 624-C	175 ± 25 pli
Service Temperature	-20°F to 300°F -29°C to 149°C

(Results based on lab drawn film)

APPLICATION

Themecoat™ 1752-FR should be applied using a 1:1 plural component equipment capable of developing a minimum of 2000 psi (13.8 MPa) and heating the individual component to **170°F (77°C)** using an impingement gun.

Both Themecoat™ 1752-FR Side-A and Side-B materials should be continuously agitated before and during application. Agitate at least 1 hour prior to application using heavy duty drum agitator.

Hose temperature should be maintained at **160-170°F (72-77°C)**. The Themecoat™ 1752-FR Side-A material must be preheated to **90-100°F (32-38°C)** and Side-B material preheated to **75-80°F (24-27°C)**.

Themecoat™ 1752-FR should be sprayed in multidirectional passes for a proper uniform thickness.

STORAGE

Themecoat™ 1752-FR has a shelf life of six (6) months from date of manufacture in factory sealed containers.

Part-A and Part-B drums must be stored above 60°F (15°C).

Avoid freezing temperatures.

Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Part-A and Part-B drums regularly.

Do not open until ready to use.

WARNING

This product contains Isocyanates and Curative Material.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Polycoat Products representative or visit our website for current technical data and instructions.

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