

DESCRIPTION

SafeCoat® Steel is a single-component latex intumescent fire retardant coating ideally suited for exposed **interior** structural steel where a flame spread and fire resistance rating is required. It is ideal for interior steel columns, trusses, beams and other exposed structural members. It limits thermal penetration by expanding to many times the original dry film thickness when exposed to heat. This expanded material forms a char which insulates the substrate against heat and reduces available oxygen to the surface.

USES

- Imparts fire rating to exposed steel structural members
- Provides an aesthetic, thin, decorative finish to comply with architectural designs

FEATURES

- Forms a char under fire conditions, preventing the spread of flames, and slowing the penetration of heat through the substrate
- Excellent adhesion and durability when applied to metal
- Dries to a smooth, paint-like finish

PROPERTIES

Coating Type	Latex
Finish	Flat
Color	Off-white. A suitable top coat may be used to achieve the desired colour, sheen and durability. Contact the distributor or manufacturer.
Density	13.18 lbs/USG or 1.58 g/mL
Hardness	80 (Shore D)
Solids by Weight	78%
Solids by Volume	66%
Coating VOC	3.9 g/L
Bond Strength	660 psi
Dry Time (Touch):	1-2 hours (varies with mil thickness, temperature and humidity)
Flash Point	No Flash
Storage Limits	10 - 35°C (50 - 95°F) Keep from freezing
Shelf Life	6 months
Packaging	Available in five-gallon pails. Special order: 55-gallon drums

FLAME SPREAD and FIRE RESISTANCE RATINGS OF LISTED PRODUCT

Test	Rating				
CAN/ULC S-102-18	Flame Spread: Class A (0)		Smoke Development: Class A (25)		
UL 263 (2011) CAN/ULC S-101 (2014) ASTM E119 (2018a)	Fire Resistance (30-120 minutes) (Contact manufacturer for mil thickness for your required rating; varies based on time, steel member type and size. Some examples of testing are below.)		Listing Design #: QTS/IF 120-01 Intertek: Listing Section(s): ROOF/CEILING, FLOOR/CEILING, BEAM & COLUMN ASSEMBLIES. CSI Code(s): 07 81 00 Applied Fireproofing; 07 00 00 Thermal and Moisture Protection; 07 81 23 Intumescent Fireproofing		
Columns (1-hour Rating)	M/D	WFT (mil)	Coverage	DFT (mil)	
W10x30	40.5	136	12 sq. ft./gallon	88	
W12x50	53.1	116	14 sq. ft./gallon	75	
W14x30	32.8	154	10 sq. ft./gallon	100	
HSS 4"x4"x3/8"	20	143	11 sq. ft./gallon	93	
HSS 4"x4"x1/4"	13.5	222	7 sq. ft./gallon	144	



APPLICATION INSTRUCTIONS



Surface Preparation:

All surface preparation should be carried out in accordance with good painting practices. Remove all loose, peeling or powdery paint from the surface. All dirt, grease, oil, wax and other foreign material must be removed with a suitable cleaner and allowed to thoroughly dry. Steel must be primed with an approved anti-corrosive primer, tested for adhesion both before and during burn testing.

Approved Primers:

Quantum Chemical: **PRECIDIUM™ Epoxy 41-P**
Cloverdale Paint: 70323; 71044; 70327; 71199
PPG: Multiprime 4160; DevGuard 4190;
Spectracron QAP 111, NLP Series Primers
Sherwin Williams: ProCryl; DTM Bonding Primer

Application:

For optimal finish, apply **SafeCoat® Steel** using airless spray equipment. Remove both the gun and pump filters prior to spraying. See the detail application instructions for specific equipment recommendations.

SafeCoat® Steel is a heavier body paint requiring mechanical/shear mixing for best product viscosity for spraying. Use reliable and consistent pumping equipment to achieve optimal results. Apply the first coat at approximately 15-20 mils WFT (10-13 mils DFT) and each subsequent coats at 30-40 mils WFT (20-26 mils DFT) to avoid product sag. Apply each coat uniformly to entire surface to obtain smoothest finish. Apply one coat per day or recoat once prior coat reaches a Shore D hardness of 50. A wet film thickness gauge can be used at the start of the application to check that sufficient **SafeCoat® Steel** has been applied.

Surface and ambient temperature must be maintained at greater than 10 °C (50 °F) during application and must remain so for at least 48 hours following the application.

Quality Assurance: An optional QA form is available at www.quantumchemical.com.

SafeCoat® Steel is intended for **interior use only**. If the coated substrate will be subject to repeated washing, prolonged high humidity, or high traffic, a suitable top coat is required. More than one additional finishing coat could adversely affect the flame spread rating and smoke developed classification. Consult the product manufacturer or store rep for suitable top coats.

Clean Up:

All application tools can be easily cleaned with water. If product has dried on, use hot soapy water to soften and remove it.

Precautions:

SafeCoat® Steel is not WHMIS-regulated nor is it subject to the *Transportation of Dangerous Goods Act and Regulations*. See SDS for detailed precautions. **PROTECT FROM FREEZING** as freezing will damage the product.