



FIRE PROTECTIVE COATINGS AND PAINTS (SILAGUARD™)

Silaguard is an organo-mineral water-born fire protective coating for wood, metal, plastic and other substrates. **Silaguard** has good adhesion properties to hydrophilic and hydrophobic surfaces, excellent fire-resistance and thermostability and good moisture resistance.

Under exposure to fire **Silaguard** coating swells to form a layer that reduces heat transfer, prevents wood from igniting and insulates metal surfaces..

Silaguard does not contain greenhouse gases, volatile organic chemicals or hazardous solvents.

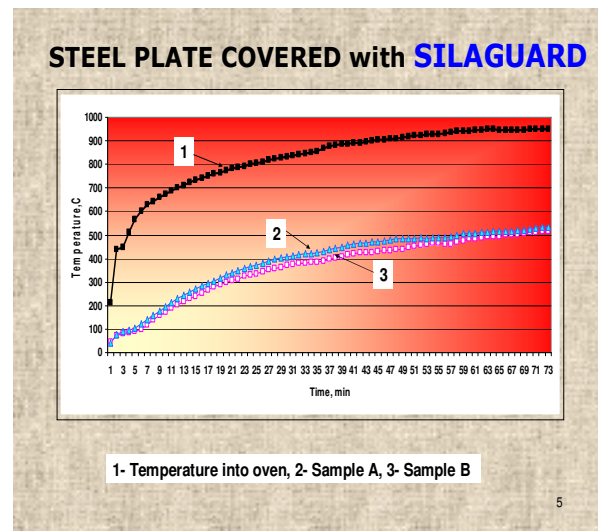
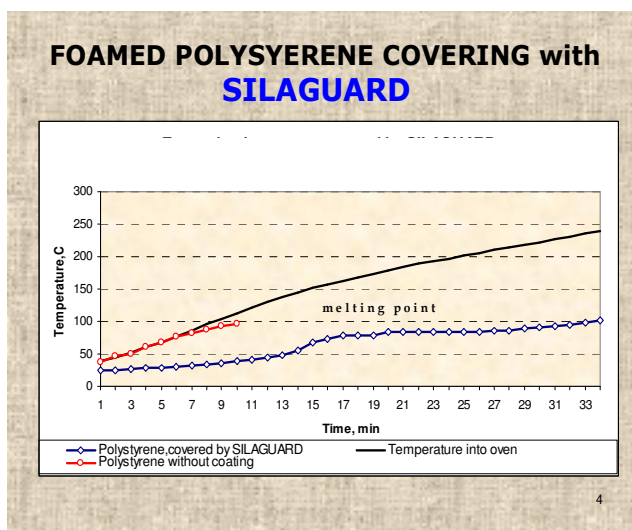
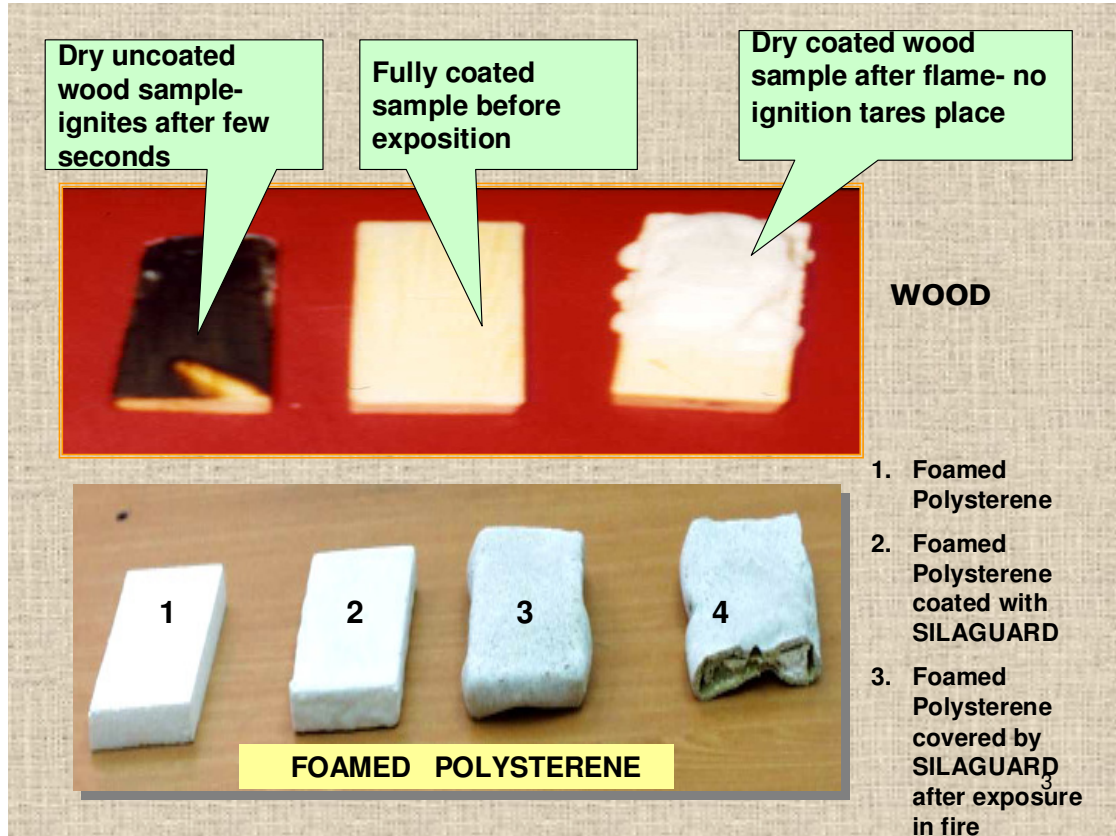
Silaguard has superior properties to fire resistant coatings based on special epoxy resins and traditional silicates:

- Stability to moisture
- Thermo stability up to 800°C
- Excellent fire-resistance and fire protection
 - A. For wood and plastic substrates:

Flame Spread Index (ASTM E-84)	10-20, Class A
Smoke Developed Index (ASTM E-84)	15

B. For steel substrate:

Fire retardation in 500°C	60-100 min
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PROPERTIES of **SILAGUARD**

<i>Property</i>	<i>Unit</i>
Density	2.8 g/cm ³
Application	1-4 layers
Coverage thickness	0.12- 0.4 mm
Weight loss after 2 min. exposure at 200°C	<4%
Fire Resistance after exposure to flame > 800 kW/m ²	950°C > 30 minutes
Adhesion to asbestos-cement plates	3.1 MPa
* Flame Spread Index (according to ASTM E 84)	10 - 20 (Class A)
* Smoke Developed Index (according to ASTM E84)	15
* Results of HARDWOOD PLYWOOD & VENEER ASSOCIATION LABORATORY AND TESTING SERVICE (USA)	

PROPERTIES of **SILAGUARD** COMPARED to ALUMINUM HYDROXIDE BASED COATINGS (AHB) and EPOXY-BASED COMPOSITION (ABC)

Parameter	SILAGUARD	AHB	EBC
Thermostability (°C)	800	600	400
Moisture resistance	+	-	-
Adhesion:			
- Wood	+	-	+
- Plastic	+	-	+
-Concrete	+	+	+
-Steel	+	+	+



SUBSTRATES

- **Wood structures**
- **Metal structures**
- **Concrete structures**
- **Plastic articles**

Silaguard coating can be applied by brush, roller, pneumatic spray or airless high pressure spray, depending of the substrates. The recommended thickness of dried coating is 0.1-0,3 mm in 3 to 4 layers. The application rate total is 0.6-2.2 kg/m²