



Energy Shield
Systems

ESS PF-57

PRODUCT DESCRIPTION

ESS PF-57 is a high performance elastomeric polyurethane coating that was specifically designed in order to provide durability to floors by methods of application. It will also provide excellent waterproofing properties.

PRODUCT FEATURES

- Low Odor
- Excellent Hardening at low temperatures
- Good elasticity and flexibility
- High film build in one coat
- Excellent waterproofing of concrete
- Can be used as full coating or as a concrete block filler
- Applied by brush, roller or squeegee
- Great coverage
- Provide seamless high build durable coating
- Cures at temperatures down to -10 °C (15°F)
- Excellent impact resistance

TYPICAL USES

- Showrooms
- Auditoriums
- Warehouse
- Parking deck
- Wood decks
- Locker rooms
- Amusement parks
- Zoos
- Manufacturing plant

TECHNICAL DATA

Colors available:	Any	V.O.C:	50 g/l 0.42 lbs/g
Gloss:	High Gloss (80°+)	Drying times (20°C) based on 20 mil (0,5mm) DFT	
Solids By Volume:	92 - 96%	Tack Free:	1.5 - 2 hrs
Solids By Weight:	94 - 98%	To recoat:	5 - 6 hrs
Theoretical Coverage of 1 mil	1508 ft ² Gallon	Hard:	8 - 12 hrs
D.F.T. at 25 microns:	139 m ² 3.78 liters	Pot life:	50 - 60 min
Recommended WFT:	21 - 32 mils	Reduction solvent:	Not necessary ESS
Depending upon application		Catalyst:	57C Catalyst 1:1
Dry film thickness:	20 - 30 mils	Mixing ratio:	by volume 24
Depending upon application		Shelf life:	months
Kit Viscosity:	90 - 110 ku	25°C unopened 1	
Kit Specific Gravity:	1.1 - 1.3 kg/l	gallon	
Flash Point:	≥38°C (≥100°F)	Packaging: base:	1 gallon
		Catalyst:	1 gallon

PHYSICAL DATA

Properties under tension: ASTM D 412-C

Elongation: 195%
Tensile Strength: 9.25N/mm² (1341 PSI)
Adhesion by pull off strength: ASTM D 4541
7.5 N/mm² (1088 PSI)
Indication of hardness: ASTM D 2240
80 Shore A / 35 Shore D

Taber Abrasion Resistance: ASTM D 4060
1000 cycles, 1000g load, CS-17 wheel: 97 mg
1000 cycles, 1000g load, H-18 wheel: 316 mg
Impact resistance: ASTM D 2794
Direct @ 77°F (25°C) 160 in/lb (18.0 joules)
Indirect @ 77°F (25°C) 160 in/lb (18.0 joules)



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SURFACE PREPARATION

The surface must be dry, oil free, grease free, and dust free. Stone particles or other debris must be removed. Wax substrates or residue or ver contaminated substrates must be cleaned with a sand blasting machine, a grinding machine, or a high pressure washing machine. Apply ESS's primer before application of the IPP PF-57.

MIXING AND THINNING

First, power mix the base until it becomes homogenous. Secondly, add catalyst slowly until continued agitation until both the base and catalyst parts are will mixed together. Then the ESS PF-57 is ready to use.

APPLICATION PROCESS

The coating is applied using a trowel, a doctor blade or a squeegee. Over rolling with a spiked roller over it to avoid bubbles forming of the coating and promotes further leveling.

Vapor transmission test should be performed prior to application.

Contact ESS for complete system recommendations.

SPECIAL INSTUCTIONS

Do not store below 0°C (32°F) or above 35°C (95°F).

The area coated must be free of all traffic for a period of 24 hours to dry.

Full curing to the core of the product should be complete after 7 days following application.

Do not apply if relative humidity is at or above 80%.

Surface temperature must be at 3°C (5°F) above the dew point during application.

Aromatic Polyurethane - Color and gloss will be affected by UV exposure.

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 ESS representative or visit our website for current technical data and instructions.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and ESS makes no claim that these tests or any other tests, accurately represent all environments.

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