



SYNTRAN® 1657

Concrete Coatings Brochure

SYNTRAN® 1657 is based on a proprietary self-crosslinking technology. This technology combines two different crosslinking mechanisms on the same polymer backbone, which substantially increase the chemical resistance, stain resistance and water resistance of the cured polymer film. This technology was designed for the self-crosslinking mechanism to fully cure at room temperature, which gives 2K properties in a 1K concrete topcoat or sealer.

When formulated properly with an optimized blend of additives the Syntran 1657 will form a tough protective coating over a wide variety of temperature and humidity conditions. The physical testing properties shown below are based on testing done in our Application Laboratories using the provided starting point formula called F99-169-03. If you would like more information or samples, please contact your local Zschimmer & Schwarz Interpolymer Representative.

Typical Chemical and Physical Properties

	<i>Syntran 1657 "Acrylic only"</i>	<i>F99-169-03 "Sealer Formula"</i>
Physical form	White emulsion	White emulsion
Solids content	42 ± 1.0%	30 ± 1.0%
pH value	7.5 ± 1.0	7.5 ± 1.0
Viscosity	< 500 cps	< 100 cps
VOC	0 g/L	< 100 g/L
MFFT	55°C / 131°F	4°C / 39°F
Freeze-thaw stability	Protect from freezing	Unchanged after 3 cycles
Stability at 52°C	Unchanged after 30 days	Unchanged after 30 days

Suggested Starting Point Formula

F99-169-03 Clear Concrete Sealer Formula	
<i>Ingredient</i>	<i>% wt</i>
Water	28.80
Benzoflex 9-88	2.98
Propylene glycol n-butyl ether	2.71
Defoamer	0.10
1% active fluorosurfactant	0.90
SYNTRAN® 1657	64.51
<i>Total</i>	<i>100.00</i>

Physical Testing Data

<i>Bench Testing</i>	Commercial Sealer	F99-169-03 based on Syntran 1657
60° Specular Gloss <i>ASTM D1455</i> 3 coats on concrete	41, 66, 78	45, 69, 80
Depth of Gloss <i>Interpolymer Method</i>	100	100
Powdering <i>ASTM D2048</i>	None	None
Crazing <i>Interpolymer Method</i>	None	None
Leveling <i>Interpolymer Method</i>	Good	Good
Recoatibility <i>ASTM D3153</i>	Good	Good
Abrasion resistance <i>ASTM D968 – Falling Sand</i>	2.0	2.5
Abrasion resistance <i>Percent weight loss</i> <i>CS17, 500g, 500 cycles</i>	25.7%	5.6%
Pencil Hardness <i>ASTM D3363</i>	2B	HB
Sward Rocker Hardness <i>ASTM D2134</i>	18	24
UV Resistance <i>1000 hours in QUV</i>	No change color or gloss	No change color or gloss

<i>ASTM D 1308 – Covered spot test, 60 minutes</i>	Commercial Sealer	F99-169-03 based on Syntran 1657
Water	0	0
100% Isopropanol	5	0
50% Isopropanol	5	0
100% Ethanol	3	0
50% Ethanol	1	0
Skydrol - hydraulic fluid	5	4
Gasoline	5	0
Motor oil	0	0
Acetone	5	5
10% Hydrochloric acid	1	0
Betadine	2	0
Cola	0	0
Mustard	1	0
Ketchup	0	0
Red wine	1	0
Balsamic vinegar	0	0
Nonionic hand soap	1	0
Hand sanitizer gel (62%EtOH)	3	0

<i>7-Day Water Submersion Results</i>		<i>Hot Tire Pick-Up Results</i>	
Commercial Sealer	F99-169-03	Commercial Sealer	F99-169-03
			

Our Company

Zschimmer & Schwarz Interpolymer has been producing waterbased specialty polymers since 1963. We manufacture a full line of waterbased polymers that are used in multiple coatings market areas at all of our worldwide facilities (2 in the United States, 1 each in France, Korea, & China). At Zschimmer & Schwarz Interpolymer, we strive to build close working partnerships with our customers to produce tailor-made products in order to match specific needs. Our technical service and research and development centers will be your creative and innovative partners.