



# INTERNATIONAL FIRE-SHIELD, INC.

## FOR ALL YOUR FLAME RETARDANT NEEDS

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## INSPECTA-SHIELD OVERCOAT SYNTEC – 6550

SYNTEC-6550 is a water-based fluorochemical water and oil repellent finishing agent that provides excellent soil and water resistance on textiles and various other synthetic and natural fibers. Designed for use in after-market treatments, SYNTEC-6550 is designed to protect furnishings and decorative materials from wet and dry soiling, and impart water and oil repellency. SYNTEC-6550 produces a durable finish, helping treated items retain their fresh new look longer. SYNTEC-6550 can be used on most types of textiles and decorative materials made from synthetic or natural fibers and their blends. Typical applications are done from aqueous solutions of SYNTEC-6550 by the spray/air dry method.

### MATERIAL DESCRIPTION

Appearance:	Off white, milky emulsion
Ionic Characteristic:	Nonionic
Solid Content:	30%
Solvent:	64% Water 6% Dipropylene glycol monomethylether
pH:	4.2
Specific Gravity:	1.05

### CHARACTERISTICS

- Air Dry: Does not require heat curing to develop water, oil and soil resistant properties.
- Versatile: A single product that is effective on all types of fabric and carpet substrates.
- SYNTEC-6550 is easy to use as a result of the fine particle size emulsion. SYNTEC-6550 dilutes readily in water for spray/air-dry applications.
- SYNTEC-6550 is non-flammable.

### APPLICATION

Application can be done by spraying, followed by complete drying at ambient temperature. Add-on levels depend on fiber and construction, as well as level of performance desired. In general, 4 to 10 ounces/gallon dilution is sprayed at approximately 2-ounces/square yard, followed by air-drying. A uniform spray is essential to insure an even, optimum treatment.

## PERFORMANCE DATA

Fabric specimens of 100% Cotton Sheeting, 50%/50% Cotton/Polyester, and 100% Nylon 66 were treated with SYNTEC-6550 at 1% and 2% solids. Each dilution was applied by spray. Approximately 90% to 100% ( $\pm 10\%$ ) wet pickup was achieved. Samples were allowed to air dry for approximately 18 hours, and then evaluated for oil and water repellency before and after 10 cycles of abrasion using AATCC test method procedures.

The following are results for Syntec-6550

Flouropolymer Concentration (%)	Water Repellency Rating	Oil Repellency Rating	Water Repellency Rating (after abrasion)	Oil Repellency Rating (after abrasion)
1% on Cotton	4	3	3	2
1% on Cotton/Polyester	4	2	3	1
1% on Nylon	1	0	0	0
2% on Cotton	5	5	4	4
2% on Cotton/Polyester	4	2	3	1
2% on Nylon	1	0	0	0

The water and oil repellency rating numbers are based on the following:

Water Repellency Water Rating No.*	IPA Concentration	Water Concentration	Oil Repellency Oil Rating No.*	Oil Composition
1	2.00%	98.00%	1	Kaydol Mineral Oil
2	5.00%	95.00%	2	65/35 Kayhol/n-Hexade
3	10.00%	90.00%	3	n-Hexadecane
4	20.00%	80.00%	4	n-Tetradecane
5	30.00%	70.00%	5	n-Dodecane
6	40.00%	60.00%	6	n-Decane
7	50.00%	50.00%	7	n-Octane
8	60.00%	40.00%	8	n-Heptane
9	70.00%	30.00%		
10	80.00%	20.00%		

Procedure for Determining Oil and Water Repellency:

Beginning with the highest numbered test liquid, carefully place one drop in several locations on the fabric. Repeat with lower numbered liquids until the lowest number is reached that does not wet out the surface in 30 seconds (oil) or 10 seconds (water).