

Formasil™ WS Additive / Catalyst 50WS

Water Repellent System

Description

Formasil WS additive/Catalyst 50WS is a two component water repellent system for use on textiles, paper and leather.

Key Features and Typical Benefits

- Forms a flexible water repellent film
- Water repellency can be controlled by changing dosage
- Can be considered as replacement of fluoro-based chemicals

Typical Physical Properties

Property	Typical Values	
	Formasil WS additive	Catalyst 50WS
Product	Formasil WS additive	Catalyst 50WS
Appearance	Pale yellow clear liquid	Pale yellow clear liquid
Viscosity (25 °C) mPa-s	100	3
Specific Gravity (25 °C)	0.98	0.86
Active Content, %	100	50
Diluent	-	Isopropyl alcohol

Typical properties are average data and are not to be used as or to develop specifications.

Potential Applications

- Clothing (Cotton, Polyester, etc), leather, fabrics for umbrellas, paper, glass, synthetic resins

General Considerations for Use

1. Dilute Formasil WS additive with an appropriate solvent to obtain the desired concentration (typical level is 2-5% solids content).
2. Add the same amount of Catalyst 50WS to the diluted Formasil WS additive.
3. Immerse the substrate into above solution bath or spray onto the substrate, so that there is complete saturation.

4. Air-dry it to evaporate absorbed solvent. Solvent evaporation can be accelerated by heating to 40-50 °C.
5. After solvent evaporation, cure for one day at room temperature.
6. In case water repellency is not sufficient, repeat steps 3 to 5 above.

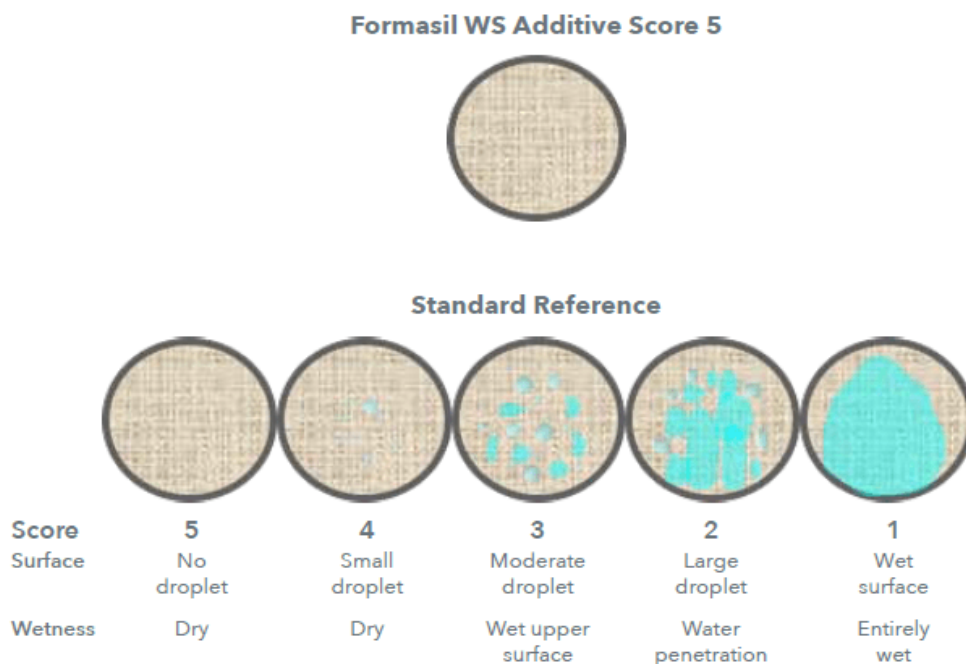
Note: Since viscosity increase or gelation may occur by reaction with moisture in the air, close the Catalyst 50WS container tightly to avoid contact with moisture.

Typical Performance Test Data

Water Repellency Test: JIS L-1092

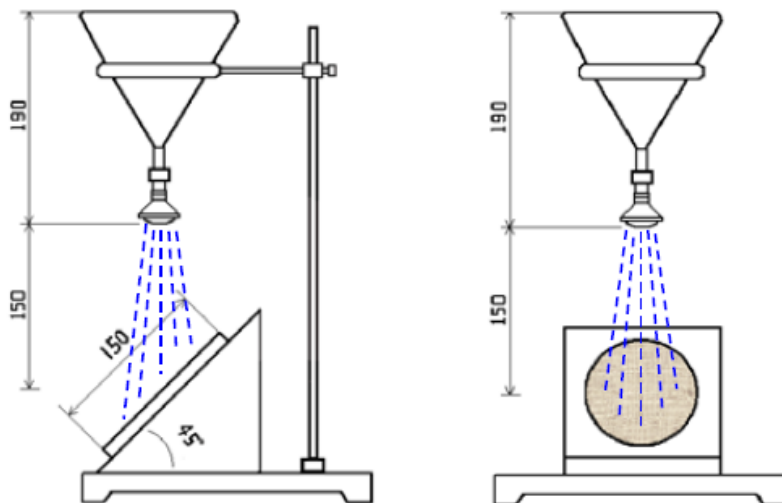
Test Method

1. Apply 1% Formasil WS additive / Catalyst 50WS Isopropyl alcohol solution onto cotton cloth, and dry.
2. Attach the cloth to apparatus.
3. Add 250ml Water to the funnel and spray onto the cloth.
4. Observe and score the water repellency by comparing with standard reference.



Test results. Actual results may vary.

Water Repellency Test Equipement

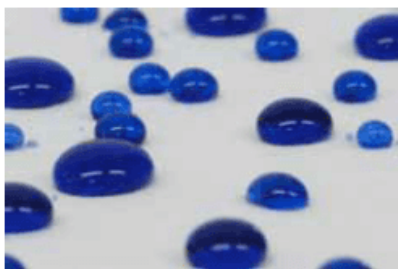


Water Repellency Test

Test Method

1. Apply 4% Formasil WS additive / Catalyst 50WS isopropyl alcohol solution onto substrate until it is entirely wet, and dry overnight.
2. Observe the water repellency by dropping colored water.

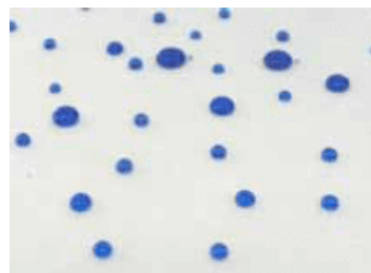
Polyester treated with Formasil WS additive treated



Genuine leather treated with Formasil WS additive



Cotton treated with Formasil WS additive



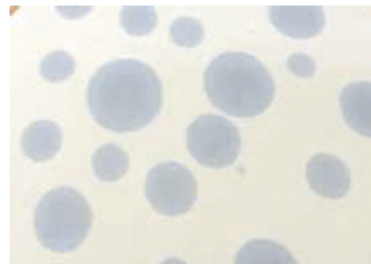
Polyester (Control)



Genuine leather (Control)



Cotton (Control)



Packaging

- Currently available each 15kg cans

Patent Status

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Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

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