Weiss Bonya

Gemini ® Superhydrophobic Treatment Agent

AnG-157

[Introduction]

AnG-157 is a superhydrophobic nano coating agent, it is solvent based one-part self-drying/heat curing type. Combining interface reaction and surface modification, it is resistant to moisture, freeze and has outstanding abrasion durability and long-term weatherability. It can achieve superhydrophobicity on various substrates, preventing water-film formation and reduces ice build-up, anti wetting, anti icing and anti snow, preventing rain fade of communication equipment, and reduce signal loss of Ku and Ka band.

[Typical Properties]

Properties	Units	AnG-157
Solid	Wt%	30
Appearance	/	White translucent liquid
Density	g/cm^3	0.9
Solvent	/	Butyl acetate / Ethanol
Baking Temperature / Time	/	Self-drying 24 hrs / 80℃ 5mins

[Performance]

Test Item	Test Method	AnG-157
Water contact angle	10～20μL Water	150~165°
Water fall off angle	10～20μL Water	＜5°
Film color/thickness	Observation / μm	White/20~30
RF Transparent	RF sensor	Good
Durability	UV、rain aging chamber	3~5 years
Dielectric constant	100MHz	3
Salt Water Spray Test	5% NaCl, temperature 35℃, test time 1000 hrs	Good
High Temp/High Humidity	85℃×85％RH×200 hrs	Good
Thermal Shock	-40℃×1hr ⇆ 85℃×1hr, 100cycle	Good
Abrasion Durability	Taber, 10 cycles with CS10 wheel	Good
Weatherability	UV weather test chamber,200hrs,color aberration within ⊿E=1.0	Good

[Applications**]**

Used in 5G antennas, radar radomes, passive reflectors, repeaters, sensors, towers of telecom, power plant, meteorology, energy, bridges, outdoor mechanical and electrical equipment, insulators, anemometers, rain gauges, wind power turbine and blades, locomotive speed radars to prevent ice and snow adhesion, etc.

[Applicable substrates**]**

metal, paint, textile, FRP, rubber, gel coat, plastic, foam, ceramic, glass, cement, stone etc.

[Processing Method]

Suggest spraying, make sure the coating is uniform and even. The temperature of the surface to be sprayed should be -15℃~35℃. Keep containers at room temperature prior to use. All surfaces need to be dry and free from wax, grease, and polishes for good adhesion.

Shake the container vigorously for 30 seconds before open it. The nanoparticles in it must be dispersed properly before and during spraying. Surface drying time is 2 hrs, then can move or transport, make it longer in winter.

Allow the treated surface to dry for over 24 hours before exposing to rain and will reach maximum durability after 5 days, so suggest testing after 5 days. For best long- term performance avoid imposing excessive mechanical friction or other surface treatments.

Substrate cleaning Degreasing 、drying ⇨ Dry surface uniform even spray ⇨ Self drying 24 hrs or Heat 80℃5mins ⇨ Coating Completed

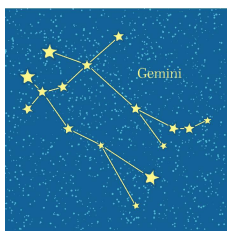
Can use alcohol、Detergent Make sure no residue

Estimated 1L can cover 20 ㎡ substrate

[Attention]

- During processing, avoid direct contact with the skin, using gloves and safety glass in the test. If skin contacts with products, immediately wipe with a dry cloth and then wash skin with soap and water, If eyes contact with products, immediately flush eyes with plenty of water for at least 5 minutes, and call a physician.
- Keep the container sealed and store between **5~35℃,** well ventilated locations, shelf life is 1 year.

[Packaging/Transport] 1L,10L plastic jug. Classified as dangerous in the meaning of transport regulations



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