

Gemini[®] Hydrophilic Oleophobic Hardcoat

AnO-165

[Introduction]

AnO-165 is a permanent hydrophilic and oleophobic hardcoating, it is water based one-part self-drying / heat curing type, food-grade non-toxic and eco friendly. Combining interface compact adhesion, it has high transparency and 9H hardness, damp and heat resistance, acid and alkali resistance, super abrasion durability, it brings water affinity and oil repellency to various substrates, keeping it brightly transparent and abrasion resistant.

[Typical Properties]

Properties	Units	AnO-165
Solid	Wt%	20
Appearance	/	Transparent liquid
Density	g/cm ³	1.1
Solvent	/	Water
Baking Temperature / Time	/	Self-drying 24 hrs / 220°C 10mins

[Performance]

Test Item	Test Method	AnO-165
Water/Oil contact angle	10~20 μ L Water / 10~20 μ L Hexadecane	15~18° / 65°
Film color/thickness	Observation / μ m	Transparent/ 2~5
Hardness	Pencil hardness tester	9H
Adhesion	Cross-Cut Tester	Grade 0
Light Transmittance	Light transmittance tester, 380nm~780nm	> 90%
Abrasion Durability	Taber, 10 cycles with CS10 wheel	Good
Solvent Resistance	99.5% alcohol whipping, load 500g/cm ² , 100cycle	Good
Acid / Alkali Resistance	30%HCl、30%NaOH drip on the substrate, standing time 24hrs	Good
High Temp/High Humidity	85°C × 85%RH × 100hrs	Good
Thermal Shock	-40°C × 1hr \leftrightarrow 85°C × 1hr, 10cycle	Good
Salt Water Spray Test	5% NaCl, temperature 35°C, test time 1000 hrs	Good
Anti Fouling/Easy to Clean	Draw mark pen on surface, marks fade out after water rinsing/wiping	Good
Impact Resistance	300N/cm ² front impact and back impact	Good
Heat Resistance	200°C × 30mins \leftrightarrow 25°C × 15mins, 10cycle	Good

[Applications]

Used in medical equipment, building construction / decoration materials, bathroom and swimming pool facilities, solar panels, electrical appliance and electronic equipment shells/frame glass, optical windows, kitchen utensils / sinks, bathroom ware, glass walls etc.

[Applicable substrates]

metal, glass, ceramic, brick, wood, cement, stone etc.

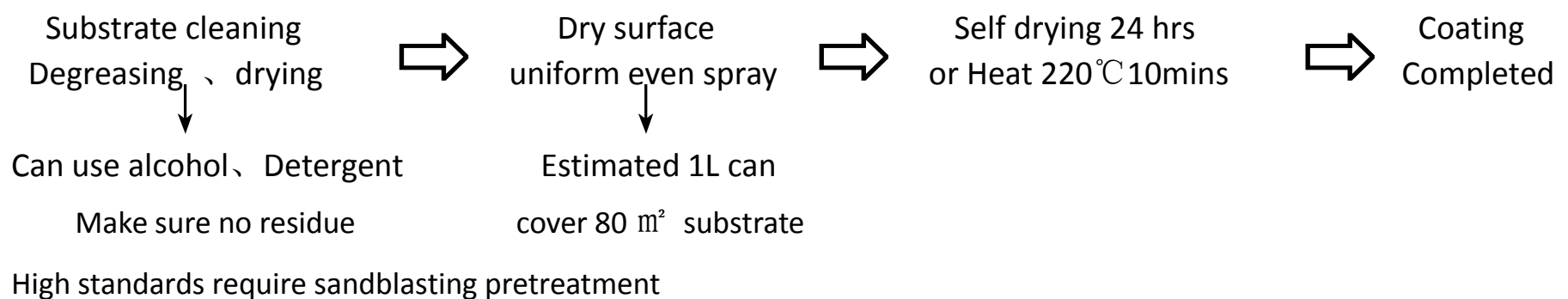
[Processing Method]

Spraying, dipping, brushing. Suggest spraying, make sure the coating is uniform and even. The temperature of the surface to be sprayed should be 5°C~35°C. Keep containers at room temperature prior to use. All surfaces need to be dry and free from wax, grease, and polishes for good adhesion.

Because it is water based coating, it does not fit well on fluorocarbon finish.

Shake the container vigorously for 30 seconds before open it. The nanoparticles in it must be dispersed properly before and during spraying. Please clean the spray gun with alcohol before and after spraying to avoid cross contamination. The spray gun is set to low pressure and low volume. One-time cross coat spraying can achieve certain effect, overlapping spraying can be done as needed. Self drying time is 24 hrs or heat 220°C 10mins, then can move or transport, make it longer in winter. If conditions allowed, heat curing is better than self-drying in finishing results.

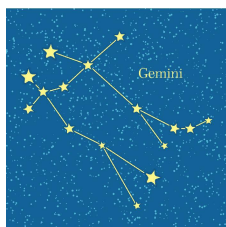
The 24 hrs self dried coating must continue to dry for over 2 days to reach maximum durability, so suggest testing after 3 days. The 220°C 10mins heated coating must continue to dry for over 24 hrs to reach maximum durability, so suggest testing after 1 day. For best long- term performance avoid imposing excessive mechanical friction or other surface treatments.



[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°C**, well ventilated locations, shelf life is 6 months. Finish it all within 1 week after open, otherwise it will aggregate.

[Packaging/Transport] 25kg plastic jug. Not classified as dangerous in the meaning of transport regulations



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