

Anti-fog Products	Visgard 106-94 (Two-Part)	Visgard 112-20 (One-Part)	Visgard 121-35 (One-Part)
Recommended Thickness	6 to 15 microns	5 to 6 microns	5 to 6 microns
Solid(s) Content (by weight)	Part A 28%; Part B 68%	30%	25%
Viscosity Range (Brookfield)	Part A 8-25 cps; Part B 30-300 cps	30-50 cps	10-50 cps
Refractive Index	N/A	1.532	Same as Visgard-112-20
Appearance	Part A-colorless to pale amber; Part B-clear solution	Light blue to blue-green	Same as Visgard-112-20
Recommended Solvent Mix	The following formulation will generate 27% solids at 15 cps viscosity: Part A-10 parts; Part B-4 parts; Tertiary Butyl Alcohol-TBA-2.8 parts; Diacetone Alcohol-DAA-4.2 parts	DAA-diacetone alcohol should be added to bring percent solid down to 25%	Make-up solvent is 1-methoxy-2-propanol to maintain solids at 25%
Alternative Solvent Mix	If relative humidity is above 50%, use DAA only. Dilute AF-10694 with DAA down to 30% solids.	N/A	N/A
Water Washable	Yes	Yes	Yes
Silicon Incompatible	Yes	Yes	Yes
Dip or Flow Coat	Both, but flow recommended	Both, but dip recommended	Same as Visgard-112-20
Recommended Substrate	PC, acrylics, nylon, PVC, PETG w/o Primer	PC, CR39, nylon and other clear plastics w/o primer	Same as Visgard-112-20
Primer Needed in	Glass applications	Glass applications	Same as Visgard-112-20
Recommended Solution to Solvent Ratio for Flow Coating	10 parts Visgard Part A, 4 parts Visgard Part B, 6 parts solvent	Dilution to 20% solids with DAA is recommended for flow coating	Can be used as-is for flow coating
Recommended Solution to Solvent Ratio for Dip Coat	Contact FSICT for recommendation	Dilution to 25% solids is recommended for dip coating. However, withdrawal speed (cm/min.) along with liquid coating thickness determines cured coating thickness.	Ready for use

Technical Information Abstract for Visgard One-part and Two-part Coatings (cont.)

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Pot Life	Once mixed, solution should be used as soon as possible. Many factors shorten or lengthen pot life. Always circulate when in process.	Pot life depends on environmental factors such as heat and humidity. Keep sealed tightly in container to prolong pot life to full 6 months.	Same as Visgard-112-20
Shelf Life	Unmixed, Visgard Part A will remain stable for 1 yr. Part B will last for 6 months.	6 months	Same as Visgard-112-20
Air Dry Time	Place coated part into oven 3-6 minutes after coating	Place coated part into oven 2-3 minutes after coating	Place part directly into oven
Pre-Cure or IR cure, if desired	10 min @ 60C°	10 min @ 100C°-110C°	Same as Visgard-112-20
Curing Conditions for Polycarbonate	125C for 1 hour	125C for 1 hour	Same as Visgard-112-20
Post Cure	Let rest overnight	Let rest overnight	Same as Visgard-112-20
Packaging	HDPE Bags, do not package in areas of high humidity, >than 70% RH	HDPE Bags, do not package in areas of high humidity, >than 70% RH	Same as Visgard-112-20
Tinting	Yes, cured parts will accept commercial ophthalmic dyes	Yes, cured parts will accept commercial ophthalmic dyes	Same as Visgard-112-20
Clean-up	Clean with Isopropanol, diacetone alcohol or methyl ethyl ketone	Clean with Isopropanol, diacetone alcohol or methyl ethyl ketone	same as Visgard-112-20
Technical Properties	Visgard 106-94 (Two-Part)	Visgard 112-20 (One-Part)	Visgard 121-35 (One-Part)
Tests Passed for Fog Resistance	Passes ASTM F659 & EN168-N at a coating thickness of 5-6 microns	Passes ASTM F659 & EN168-N at a coating thickness of 5-6 microns	Same as Visgard-112-20
EN166 UV radiation	N/A	N/A	N/A
Clarity	Less than 1% haze (avg. 0.5%)	Less than 1% haze	Same as Visgard-112-20
Scratch Resistance, Taber Abrasion According to ASTA D1044	Excellent, when compared to other anti-fog coatings. 7.6% Delta Haze at 8 microns when tested at 100 cycles with a CS10F wheel and 500g load.	Average when compared to other anti-fog coatings. 10% Delta Haze at 8 microns when tested at 100 cycles with a CS10F wheel and 500g load.	Same as Visgard-112-20

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Falling Sand Abrasion According to ASTM D968, Diffusion of Light	Excellent, when compared to anti-fog and hard coat coatings. 1.72% Delta haze at 8 microns.	Excellent, when compared to anti-fog and hard coat coatings. 1.5% Delta Haze at 8 microns.	Same as Visgard-112-20
Anti-fog Test 1	1 hr soak/1 hr dry-50C water in beaker, 30 sec fog-free	1 hr soak/1 hr dry-50C water in beaker, 30 sec fog-free	Same as Visgard-112-20
Anti-fog Test 2	24 hr soak/1 hr dry-place part in refrigerator until part temp is 4C°. Place part in room temp (21C°) at 70%-80% RH. Part should remain fog free.	24 hr soak/1 hr dry-place part in refrigerator until part temp is 4C°. Place part in room temp (21C°) at 70%-80% RH. Part should remain fog free.	N/A
Chemical Resistance to Solvents	Excellent, when briefly exposed less than 1% haze (avg. 0.5%)	Excellent, when briefly exposed less than 1% haze	Same as Visgard-112-20
Bleach, DEET Resistance	N/A	N/A	N/A
Weathering	Does not crack or peel in sunlight, protects most plastics from yellowing	Does not crack or peel in sunlight, protects most plastics from yellowing	Same as Visgard-112-20
Maintenance & Care	Can tolerate cleaning solvents and detergents, can degrade with exposure to grease and oil, clean with grease cutting detergent	Can tolerate cleaning solvents and detergents, can degrade with exposure to grease and oil, clean with grease cutting detergent	Same as Visgard-112-20

FSI Coating Technologies, Inc.
Corporate Headquarters
 45 Parker, Suite 100
 Irvine, CA 92618, USA
fsicti.com
 Tel: +1-949-540-1140
 Fax: +1-949-540-1150
customer-care@fsicti.com



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