

Selfacecoat Property data (VSR-40)

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1. Coating Specification

- (1) Test Material Selfacecoat : VSR-40
- (2) Test substrate : Aluminum plate (Chromate treatment)
- (3) Application method : Spray coating and Drying 120°C×15 minutes
- (4) Appearance after coating : Pale white

2. Test Contents

- (1) Rinse with water after testing → Leave test piece for 1 day after forced drying
- (2) Evaluation after the test : Visual confirmation of peeling
- (3) Test results:
 - *1 Appearance: No change [equivalent to initial state], Cloudy [Peeling state or dissolved state]
 - *2 Property: Hydrophilic [water contact angle of 30° or less]

3. Basic Test

Performance	conditions	Appearance※1	Hydrophilicity ※2
Peeling	JIS K5400 8.5.2 Cross-cut tape method	10points (100/100)	—
Hydrophilicity	Average of 3 points	8 degrees	—
Hardness	JIS K5400 8.4.2 Pencil hardness (Measured at three times)	H	—
Dry heat resistance	−10°C×168hr	No change	○
	60°C×168hr	No change	○
	100°C×168hr	No change	○
Water-resistant	Cold water 5°C×168hr	No change	○
	Warm water 60°C×168hr	No change	○
Humidity resistance	60°C RH90~95% 168hr	No change	○
Frost durability	−10°C×168hr	No change	○
Thermal cycling durability	「80°C RH65%×4hr, -10°C×4hr」 ×10 times repeated	No change	○

Corrosivity	35°C 5% salt water x 168hrs continuous spray	slightly cloudy	○
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4. Running water test

(1) Test conditions

- Water Pump Discharge Volume : 1500L/Hr, Maximum Lift 1.5M
- Water Capacity : 42L (600mm x 350mm x 200mm)
- Temperature : 5 – 10°C
- Test method : Immerse the coated plate in running water for a specified period of time, after that washed the plate with purified water and dry it at 80°C for 15 minutes, and measured for change in water contact angle.

(2) Test result

	Initial	120hrs	300hrs	530hrs	2700hrs
	Contact angle	Contact angle	Contact angle	Contact angle	Contact angle
Specimen 1	8	4	6.5	8	12
Specimen 2	8	5	6	10	13
Specimen 3	8	4	8	10	13
Contact angle (Average of 3 points)	8	4.3	6.8	9.3	12.7

5. Dry-wet cycle test (Immersion in running water for 8 hours → constant temperature bath at 80°C for 16 hours)

(1) Test method :

- (2) After immersing the coated plate in running water for 8 hours, wash the test piece with purified water and hang it in a constant temperature bath at 80°C for 16 hours. The test cycle is repeated at a specified time and measures the change in contact angle.

(3) Test Result

	Initial	Repeated 5 times	Repeated 10 times
	Contact angle	Contact angle	Contact angle
Specimen 4	8	8	7
Specimen 5	8	7	8
Specimen 6	8	8	10
Contact angle (average of 3 points)	8	7.7	8.3