



TEST REPORT

15, Jongga-ro, Jung-gu, Ulsan, 44412 Rep. of KOREA

TEL 82-52-220-3000 FAX 82-52-220-3001

Report No : TAU-020737

Receipt Date : 2017.11.10.

Representative : Jang Seuk

Test Completion Date : 2018.02.22.

Company name: DONGKUK STEEL

Address : # 102, Sinseon-ro, Nam-gu, Busan, Korea

Sample name : Coating Panel(PVdF)

Test Results

TEST ITEM	UNIT	SAMPLE	RESULT	TEST METHOD
Adhesion	-	-	No Defects	KS D 3520 : 2016
Cupping Test	mm	-	7.6	Method by The Client(BS 3900 Part E4 : 1995)
Impact Resistance(500 g, 50 cm, 1/2 ")	-	-	No Defects	KS D 3520 : 2016
Bending Test	-	-	No Defects	KS D 3520 : 2016
Hardness of Coating(H)	-	-	No Defects	KS D 3520 : 2016
Appearance(Blister) after acid Resistance((23 ± 1) °C, 5 % Acetic Acid, 24 h)	-	-	No Defects	KS M ISO 2812-1 : 2012(*)
Appearance(Blister) after Alkali Resistance((23 ± 1) °C, 5 % NaOH, 24 h)	-	-	No Defects	KS M ISO 2812-1 : 2012(*)
Contamination Resistance(Blue Oil Pen)	-	-	No Defects	KS M 3802 : 2014(**)
Contamination Resistance(Red Oil Pen)	-	-	No Defects	KS M 3802 : 2014(**)
Contamination Resistance(Black Oil Pen)	-	-	No Defects	KS M 3802 : 2014(**)
Appearance(***) after Neutral Salt Spray Test(1 000 h)	-	-	No Defects	ASTM B117-16(*)

- Next Page -

Kim Younjun

Tested by Kim Younjun
E-mail: yjunkim@ktr.or.kr

Jung Bongkue

Technical Manager: Jung Bongkue
Tel: 1577-0091(ARS ①→④)

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Korea Testing & Research Institute
President



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Page: 1 of 4

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TEST ITEM	UNIT	SAMPLE	RESULT	TEST METHOD
Color Difference(ΔE) after Accelerated Weathering Test(UV, 1 000 h)	-	-	0.2	ASTM G154-16, KS A 0066 : 2015
Gloss(60 °) Maintance Ratio after Accelerated Weathering Test(UV, 1 000 h)	%	-	97	ASTM G154-16, KS D 8303 : 2009
Color Difference(ΔE) after Accelerated Weathering Test(Xenon, 2 000 h)	-	-	0.8	ASTM D6695-16, KS A 0066 : 2015
Gloss(60 °) Maintance Ratio after Accelerated Weathering Test(Xenon, 2 000 h)	%	-	91	ASTM D6695-16, KS D 8303 : 2009

- Next Page -

*Kim Younjun*Tested by Kim Younjun
E-mail: yjunkim@ktr.or.kr*Jung Bongkue*Technical Manager: Jung Bongkue
Tel: 1577-0091(ARS ①→④)

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(*) Test Condition : By The Client

(**) Contamination Resistance(By The Client)⇒ Clean with the ethyl alcohol after contaminated the test panel during 24 h.

(***) Appearance(By the Client)⇒ Confirm occurrence of blister on the coating panel(Except 3 mm inside from X-cut portion)

※ Accelerated Weathering Test(Xenon)

⇒ Light Source : 6500W Xenon Arc,Irradiance : 0.51 W/m² (340 nm)

B.S.T. : (65 ± 3) °C, Humidity : (50 ± 5) % R.H.,

Inner/Outer Filter : Borosilicate/Borosilicate,

Spray Cycle : 18 min /120 min, Exposure Time : 2 000 h

※ Accelerated Weathering Test(UV)

⇒ UV Lamp : UVA-340, Irradiance : 0.76 W/m² (340 nm),

Exposure Time/Temp : 4 h UV / (60 ± 1) °C,

Condensation Time/Temp : 4 h Con. / (50 ± 1) °C,

Total Exposure Time : 1 000 h

- Usage of Report: QUALITY CONTROL

- Next Page -

*Kim Younjun*Tested by Kim Younjun
E-mail: yjunkim@ktr.or.kr*Jung Bongkue*Technical Manager: Jung Bongkue
Tel: 1577-0091(ARS ①→④)

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NOTE : 1. The test results of this test report are only limited in to the samples and sample names provided by the client and do not guarantee the quality of all products of the client. You can check website (www.ktr.or.kr) or QR code to verify the authenticity of the certificate.
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*Kim Younjun*Tested by Kim Younjun
E-mail: yjunkim@ktr.or.kr*Jung Bongkue*Technical Manager: Jung Bongkue
Tel: 1577-0091(ARS ①→④)

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