



# TEST REPORT

98, Gyoyukwon-ro, Gwacheon-si, Gyeonggi-do, 13810, Korea

TEL 82-43-211-6144

FAX 82-43-211-6148

Report No : TAK-2018-032198

Receipt Date : 2018.02.21.

Representative : HAN MYEUNG HO

Test Completion Date : 2018.03.13.

Company name : Hanwha L&amp;C

Address : 7\_8F, CENTER1 Bldg, 26, Uljiro 5-gil, Jung-gu, Seoul, Korea

Sample name : HANEX(S)

## Test Results

TEST ITEM	UNIT	SAMPLE	RESULT	TEST METHOD
Specific Gravity((23/23) °C)	-	-	1.82	ASTM D792-13(Method A)
Rockwell Hardness(HRM)	-	-	88	ASTM D785-08(2015)(Procedure A)
Tensile Strength	MPa	-	43.1	ASTM D638-14(*)
Tensile Modulus of Elasticity	GPa	-	12.1	ASTM D638-14(*)
Flexural Strength	MPa	-	65.3	ASTM D790-17(**)
Flexural Modulus of Elasticity	GPa	-	10.8	ASTM D790-17(**)
Izod Impact Strength	J/m	-	17	ASTM D256-10e1(Method A)
Water Absorption(24 h Immersion)	%	-	0.03	ASTM D570-98(2010)e1
Density(23 °C)	g/cm <sup>3</sup>	-	1.81	ASTM D792-13(Method A)
Heat Resistance(Appearance)	-	-	No Defects	JIS K 6902 : 2007(Method B)
Heat Water Resistance(Appearance)	-	-	No Defects	JIS K 6902 : 2007(Method B)
Deflection Temperature Under Load(1.82 MPa)	°C	-	106	ASTM D648-16(Method B)
Thermal Expansion	1/°C	-	$3.5 \times 10^{-5}$	JIS K 6911:1995

\* Speed of Testing: 5 mm/min(Modulus: 1 mm/min), Specimen Type: Type I

\*\* Speed of Testing: 4.9 mm/min, Support Span: 190 mm

- Usage of Report : QUALITY CONTROL

- Next Page -

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2018.03.13

## Korea Testing & Research Institute

President

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Page : 1 of 2

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전자문서본(Electronic Copy)



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- Note :
- 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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