

TEST REPORT

Applicant : HOYA HOMETECH CO.,LTD.
Address : 937, Oehang-ro, Gunsan-si, Jeollabuk-do, Republic of Korea
Sample Name : Refer to Table 1
Sample Received : 2021. 01. 06.
Test Performing Date : 2021. 01. 06. ~ 2021. 01. 15.
Test Laboratory : Korea Polymer Testing & Research Institute. LTD. (KOPTRI)
Test Item : Refer to Table 2
Test Method(s) : Refer to Table 2
Test Result(s) : Refer to Table 2
Analyzer : Suyeon Kwon / Research Assistant

completed by,

Byung Joon Ahn

Byungjoon Ahn / Assistant Manager

Approved by,

Jungmi Kim

Jungmi Kim / Senior Manager

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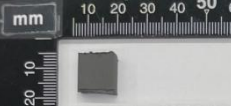
Issued Date: January 19, 2021

Tested by

Korea Polymer Testing & Research Institute (KOPTRI), Ltd.

(ISO 17025 Certified Laboratory)

Table 1. Sample Information

No	Sample Name	Koptri ID	Picture
1	HHCC-01 (Tensile Strength)	Koptri- 20-08-19420-1	
2	HHCC-01 (Flexural Strength) (Rate of Heat Shrinkage)	Koptri- 20-08-19420-2	
3	HHCC-01 (Impact Strength)	Koptri- 20-08-19420-3	
4	HHCC-01 (Compressive Strength)	Koptri- 20-08-19420-4	

Note 1) Sample Processing : Koptri () / Client (O)

Note 2) Sample Name written in the Application Form : No Request

Table 2-1. Test Results (Tensile Strength)

Koptri ID	Test Item	Unit	Test Method	Test Result
Koptri-20-08-19420-1	Tensile Strength	N/mm ²	ASTM D638	27

Note) Test Speed: 50 mm/min, Distance between Grips: 115 mm

Table 2-2. Test Results (Flexural Strength)

Koptri ID	Test Item	Unit	Test Method	Test Result
Koptri-20-08-19420-2	Flexural Strength	N/mm ²	ASTM D790	35

Note 1) Test Speed : 2.8 mm/min, Distance between Spans: 104 mm

Note 2) 4 measurements made

Table 2-3. Test Results (Rate of Heat Shrinkage)

Koptri ID	Test Item	Unit	Test Method	Test Condition	Test Result
Koptri-20-08-19420-2	Rate of Heat Shrinkage (Width)	%	Method Consulted with Client	15 °C 3 h	0.04
	Rate of Heat Shrinkage (Length)	%	Method Consulted with Client	15 °C 3 h	0.46
	Rate of Heat Shrinkage (Height)	%	Method Consulted with Client	15 °C 3 h	0.72
	Rate of Heat Shrinkage (Width)	%	Method Consulted with Client	80 °C 3 h	-0.09
	Rate of Heat Shrinkage (Length)	%	Method Consulted with Client	80 °C 3 h	-0.24
	Rate of Heat Shrinkage (Height)	%	Method Consulted with Client	80 °C 3 h	-0.46

Note) Rate of Heat Shrinkage = [(Dimension before Test – Dimension after Test) / Dimension before Test]
x 100 (+: Shrinkage, -: Expansion)

Table 2-4. Test Results (IZOD Impact Strength)

Koptri ID	Test Item	Unit	Test Method	Test Result
Koptri-20-08-19420-3	IZOD Impact Strength	kJ/m ²	Refer to ASTM D256 (Notched)	3.5

Note) Depth of notch : (3.94 ± 0.09) mm (provided by Client)

Table 2-5. Test Results (Compression Strength)

Koptri ID	Test Item	Unit	Test Method	Test Result
Koptri-20-08-19420-4	Compressive Strength	N/mm ²	UTM (Consulted with Client)	24

Note) Test Speed: 1 mm/min

End of Test Report.