



# TEST REPORT

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

TEL 82-2-2164-0011

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Report No : TAK-2023-039199

Receipt Date : 2023.03.10.

Representative : KIM GYO HYUN, SHIN DONG BIN, LEE YOUNG JUN, HWANG JIN GU

Test Completion Date : 2023.03.24.

Company name : LOTTE CHEMICAL Corp.

Address : 56, Gosan-ro, Uiwang-si, Gyeonggi-do, Korea.

Sample name : Artificial marble[STARON]

## Test Results

TEST ITEM	UNIT	SAMPLE	RESULT	TEST METHOD
Specific Gravity((23/23) °C)(Method A)	-	-	1.77	ASTM D792-20
Water Absorption(24 h Immersion)	%	-	0.02	ASTM D570-22
Barcol Hardness	-	-	65	ASTM D2583-13a
Rockwell Hardness(HRM)(Procedure A)	-	-	94	ASTM D785-08(2015)
IZOD Pendulum Impact Resistance(Method A)	J/m	-	18	ASTM D256-10(2018)
Tensile Strength(**)	MPa	-	39.5	ASTM D638-22
Flexural Strength(***)	MPa	-	59.2	ASTM D790-17
Flexural Modulus of Elasticity(***)	GPa	-	10.2	ASTM D790-17
Thermal Expansion	1/°C	-	$5.8 \times 10^{-5}$	Referencing with KS M 3015 : 2003
Temperature Under Flexural Load(Method B, 1.82 MPa)	°C	-	110	ASTM D648-18
Appearance(Crack) after Heat Resistance[(170 ± 2) °C × 1 h]	-	-	No Defects	By the Client
Appearance after Hot Water Resistance	-	-	No Defects	By the Client(****)
Dropping Impact Test	-	-	No Defects	By the Client(****)

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2023.03.24

## Korea Testing & Research Institute

President



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전자문서본(Electronic Copy)



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## Test Results

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\*\* Specimen: Type III, Speed of Testing: 5 mm/min

\*\*\* Support Span: 188 mm, Speed of Testing: 5.0 mm/min

\*\*\*\* Changing appearance(Crack) after pour boiled water on the surface

\*\*\*\*\* Drop Height : 2 m, drop Weight : 112 g(Steel ball), Test Surface : Concrete, Appearance : Crack or Not

- Usage of Report : QUALITY CONTROL

- 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.
  2. This test report shall be used only within the purpose of its defined usage and shall not be used for public relation, advertisement and lawsuit.
  3. This test report is only valid when printed on KTR original report paper with hologram and when re-issued by KTR. The copy and the electronic file of the test report are only for reference.

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