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Properties of SHINKOLITE™ MR200R

Property		Test Method	Unit	MR200R
General	Density[a, b]	ISO 1183-1: method A or C, or ISO 1183-2	g/cm^3	1.19
Optical	Total luminous transmittance[a]	ISO 13468-1	%	92
	Haze[a]	ISO 14782	%	0.5
	Reflectance(550nm)	ISO 9050	%	8
Mechanical	Tensile strength	ISO 527-2/1B/5	MPa	60
	Tensile strain	ISO 527-2/1B/5	%	2.5
	Modulus of elasticity in tension	ISO 527-2/1B/1	MPa	3200
Thermal	Temperature of deflection under load	ISO 75-2: method A	℃	100
Mar Resistance	Steel Wool Test	[c]		No scratch
	Pensile Hardness	ISO 15184 (750g load)		4H
		MCC method (200g load)		6H
Contact Angle	Water	JIS R 3257	degree	75
	Triolein	JIS R 3257	degree	20
Electrical	Surface Resistivity	IEC 93	Ω	＞1E16
Miscellaneous	Saturated Water Absorption	[d]	%	2.0
Chemical [e]	Acetone			No change
	Methanol			No change
	Artificial Sweat aq. (Acidic)			No change
	Artificial Sweat aq. (Alkaline)			No change
	Alkali aq.			No change

a For transparent, colorless material.

b Colored sheets may have a higher value.

c Whether or not some scratch can be observed,
when the surface was abraded by #0000 steel wool (load was 250 g/cm2) 10 times at the speed of 40mm/sec.

d Saturated water absorption is defined by the equation.
Sheet thickness : 1.5mm, Test condition : 14days / 40 C degree water

$$\text{Saturated water absorption} = \frac{\text{Increasing weight after the test under the described condition}}{\text{Material weight before the test}} \times 100$$

e Change of the appearance after contact test

- Acetone、Methanol：25℃x24hrs
- Artificial sweat solution（Acidic（pH5.5）／Alkali（pH8.0））：45℃95RH%x96hrs
- Alkali aq.：Chlorine-based bleach（Kao Corporation） 20℃x20min
  - △ Cracking or/and whitening
  - × Dissolution or/and decomposition

ShinkoLite™
The art of performing beauty

https://www.m-chemical.co.jp/shinkolite/index.html

06-Apr-2026
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