

Styrene-methyl methacrylate copolymer having a well-balance of properties.

TOYO MS

- ◇Transparency and textures equal to those of acrylic resin
- ◇High surface hardness
- ◇Low water absorption coefficient
- ◇Good weather resistance
- ◇High refraction factor

			MS-200 MS-200 NT	MS-600	MS-750
Melt mass-flow rate (200°C, 5kg)	ISO 1133	g/10min	1.8	1.0	4.0
Vicat softening temperature (50N)	ISO 306	°C	99	100	105
Heat deflection temperature (1.8MPa)	ISO 75-2	°C	79	79	83
Charpy impact strength (notched)	ISO 179	kJ/m ²	2.2	1.5	0.8
Tensile stress at yield	ISO 527-1	MPa	58	77	74
Tensile strain at break	ISO 527-1	%	3	5	4
Flexural strength	ISO 178	MPa	110	110	107
Flexural modulus	ISO 178	MPa	3420	3350	3230
Rockwell hardness	ISO2039-2	—	62	74	85
Total light transmittance	ASTM D1003	%	90	92	92
Haze (4mmt)	ASTM D1003	%	0.1	0.1	0.1
Refraction factor	ISO 489	-	1.57	1.53	1.52
Density	ISO 1183	kg/m ³	1075	1134	1154
Water absorption coefficient (23°C, 24h)	ISO 62	%	0.10	0.15	0.18
Ball pressure test	ICE 60695-10-2	°C	90	90	-
Flammability (UL file No. E194542)	UL 94	—	HB	HB	-
Voluntary control criteria by JHOPA ^{*)}	—	—	Conforming	Conforming	Conforming

^{*)} Japan Hygienic Olefin and Styrene Plastics Association

- The numerical values shown in the table are typical values based on the specified test methods and are not guaranteed values.
- These values may be revised based on improvements.