

DENKA STYROL MW

General Properties Of DENKA STYROL MW1

▶ Physical

Properties	Conditions	Unit	Test method	MW1
Density	23°C	kg/m ³	ISO-1183	1,050
Specific gravity			ASTM D-792	1.05
Melt Mass Flow Rate	200°C・50N	g/10min.	ISO-1133	1.9
Melt Flow Rate	200°C・5kg	g/10min.	ASTM D-1238	1.9
Spiral Flow ※1	200°C	cm	DENKA METHOD	30.5
	220°C	cm	DENKA METHOD	36.5
	240°C	cm	DENKA METHOD	42.5

▶ Mechanical

Properties	Conditions	Unit	Test method	MW1
Flexural Modulus	23°C	MPa	ISO-178	3,300
			ASTM D-790	3,500
Flexural Strength	23°C	MPa	ISO-178	101
			ASTM D-790	86
Tensile Strength (Break Point)	23°C	MPa	ISO-527-2	46
			ASTM D-638	51
Elongation	23°C	%	ISO-527-2	< 3
			ASTM D-638	< 3
Charpy Impact Strength	23°C	KJ/m ²	ISO-179-2	3.0
			Izot Impact Strength	ASTM D-256
Falling Weight Test ※2	50g	g × cm	DENKA METHOD	50 × 37
Rockwell Hardness	M Scale	-	ISO-2039-2	77
			ASTM D-785	77

▶ Thermal

Properties	Conditions	Unit	Test method	MW1
Vicat Softening Point	50N 5kg	°C	ISO-306	92
			ASTM D-1525	91
Heat Distortion Temperature	1.8MPa	°C	ISO-75-2	72
			ASTM D-648	81

▶ Flammability(ULFile NO.E49895)

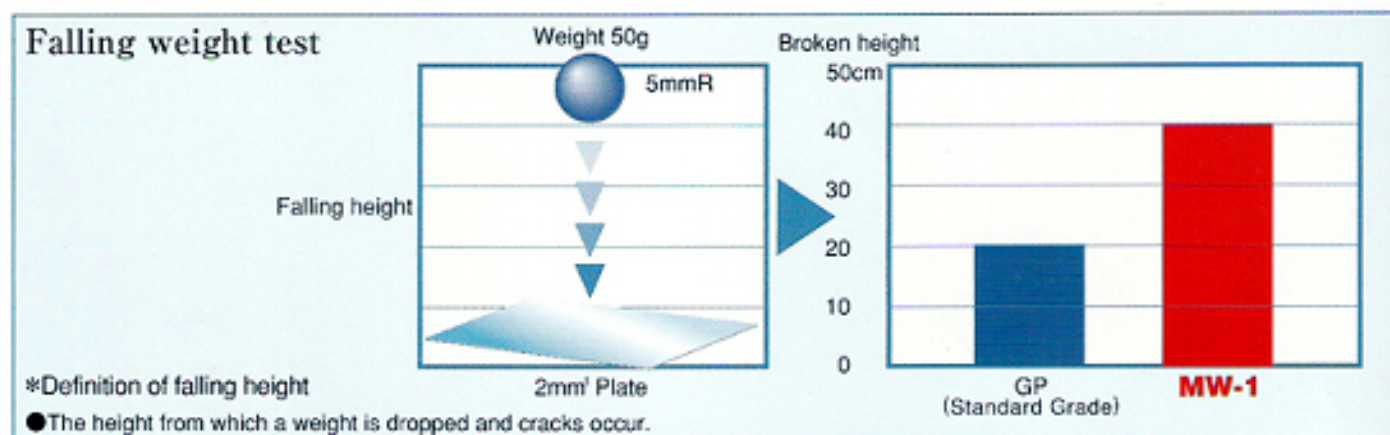
Properties	Conditions	Unit	Test method	MW1
UL-Class	-	-	UL94	HB (1.5mm All color)

* The above data are typical values obtained by laboratory testing. The data are for informational purposes and not specifications.

* 1 Spiral Flow Testing Conditions

Molding Machine	5oz. Inline screw type
Injection Pressure	90kgf/cm ² G
Mold Temperature	40°C
Spiral Size	8mm width × 2mm thickness

* 2 Falling Weight test



MW-1 Molding Conditions

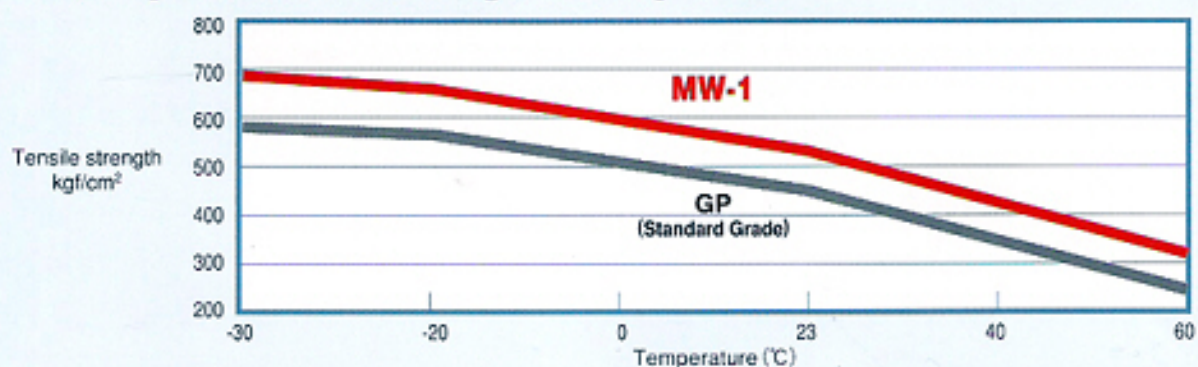
Typical molding conditions for MW-1 are listed in the table below.

Molding temperature should be controlled below 280 in order to avoid the decomposition of resin.

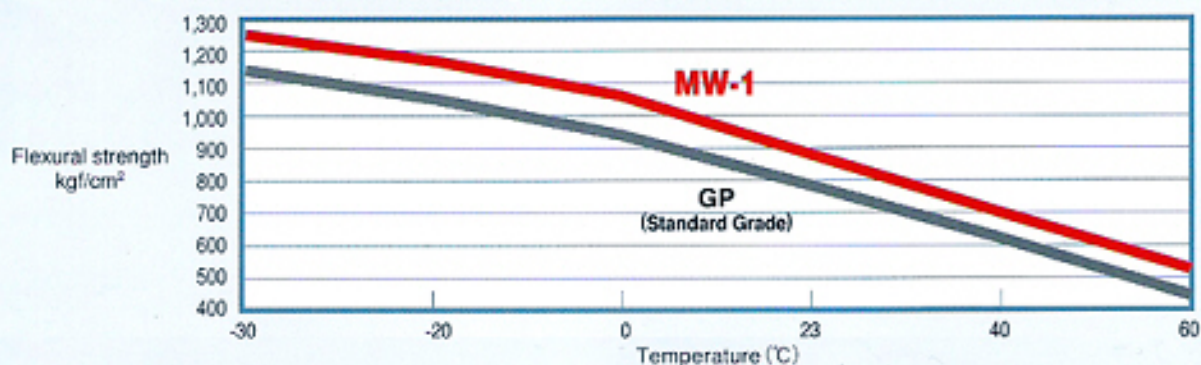
When mold temperature is too low, an increase in residual strain will occur, which may cause loss of strength in mold areas or create layers near mold gates.

Injection Molding	Inline Screw Type
Cylinder Temperature	H-1 190 - 210°C
	H-2 200 - 230°C
	H-3 210 - 240°C
Nozzle Temperature	210 - 240°C
Mold Temperature	38 - 60°C
Back Pressure	1,000 - 4,000psi
Injection Pressure	5,000 - 30,000psi
Pre-drying	no need to dry resin

Relationship between tensile strength and temperature



Relationship between flexural strength and temperature



close

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