

Miramid® DB2010CW

Polyamide 6

BASF Leuna GmbH

Message:

Miramid® DB2010CW is a Polyamide 6 (Nylon 6) material filled with 20% glass bead and 10% glass fiber. It is available in Europe for injection molding. Important attributes of Miramid® DB2010CW are:

Flame Rated

Chemical Resistant

Crystalline

Good Aesthetics

Good Dimensional Stability

Typical applications include:

Automotive

Engineering/Industrial Parts

General Information				
Filler / Reinforcement		Glass Bead,20% Filler by Weight		
		Glass Fiber,10% Filler by Weight		
Additive		Heat Stabilizer		
		Mold Release		
Features		Crystalline		
		Fuel Resistant		
		Good Chemical Resistance		
		Good Dimensional Stability		
		Good Flow		
		Good Stiffness		
		Good Surface Finish		
		Grease Resistant		
		Heat Stabilized		
		Low Warpage		
		Oil Resistant		
		Solvent Resistant		
Uses		Automotive Interior Trim		
		Engineering Parts		
Forms		Granules		
Processing Method		Injection Molding		
Physical	Dry	Conditioned	Unit	Test Method
Density	1340	--	kg/m ³	ISO 1183 ¹
Water Absorption				ISO 62 ²

Saturation	6.3	--	%	
Equilibrium	2.1	--	%	
Viscosity number	145	--	cm ³ /g	ISO 307, 1157, 1628 ³
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	200	--	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile modulus	5800	4000	MPa	ISO 527-2 ⁴
Tensile Stress (Break)	110	60.0	MPa	ISO 527-2 ⁵
Tensile Strain (Break)	3.0	5.0	%	ISO 527-2 ⁶
Flexural Stress ⁷	160	100	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy notched impact strength				ISO 179/1eA ⁸
-30°C	5.00	--	kJ/m ²	
23°C	5.00	11.0	kJ/m ²	
Charpy impact strength				ISO 179/1eU ⁹
-30°C	40.0	--	kJ/m ²	
23°C	45.0	60.0	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2 ¹⁰
0.45 MPa	215	--	°C	
1.8 MPa	200	--	°C	
Continuous Use Temperature				ISO 2578
-- ¹¹	130	--	°C	
-- ¹²	180	--	°C	
Melting Temperature (DSC)	220	--	°C	ISO 3146
Electrical	Dry	Conditioned	Unit	Test Method
Volume resistivity	1.0E+13	1.0E+10	ohms·m	IEC 60093 ¹³
Dielectric Constant (1 MHz)	3.50	4.60		IEC 60250
Dissipation Factor (1 MHz)	0.020	0.10		IEC 60250 ¹⁴
Comparative tracking index	425	--		IEC 60112 ¹⁵
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (1.00 mm)	< 100	--	mm/min	FMVSS 302
Flame Rating (1.50 mm)	HB	--		UL 94
Burning Behav. at thickness h (1.50 mm)	HB	--		ISO 1210 ¹⁶
Glow Wire Flammability Index (1.00 mm)	550	--	°C	IEC 60695-2-12
Injection	Dry	Unit		
Processing (Melt) Temp	260 to 290		°C	
Mold Temperature	80.0 to 100		°C	
NOTE				

1.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
2.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
3.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
4.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
5.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
6.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
7.	Typical values for uncoloured product at 23°C and 50% relative humidity
8.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
9.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
11.	Temperature index at loss of 50% tensile strength, 5000h
12.	Short time
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
14.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
15.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
16.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

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