

# Miramid® VE50C

Polyamide 6

BASF Leuna GmbH

Message:

Miramid® VE50C is a Polyamide 6 (Nylon 6) material filled with 50% glass fiber. It is available in Europe for injection molding.

Important attributes of Miramid® VE50C are:

- Chemical Resistant
- Crystalline
- Fast Molding Cycle
- Good Stiffness
- Mold Release Agent
- Typical applications include:
  - Automotive
  - Engineering/Industrial Parts
  - Construction Applications
  - Electrical/Electronic Applications
  - Sporting Goods

General Information	
Filler / Reinforcement	Glass Fiber,50% Filler by Weight
Additive	Mold Release
Features	Crystalline
	Fast Molding Cycle
	Fuel Resistant
	Good Flow
	Good Stability
	Good Stiffness
	Grease Resistant
	High Rigidity
	Oil Resistant
Uses	Solvent Resistant
	Automotive Applications
	Building Materials
	Electrical/Electronic Applications
	Engineering Parts
	Machine/Mechanical Parts
Forms	Sporting Goods
	Granules
Processing Method	Injection Molding
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)
	Secant Modulus vs. Strain (ISO 11403-1)
	Shear Modulus vs. Temperature (ISO 11403-1)

Physical	Dry	Conditioned	Unit	Test Method
Density	1560	--	kg/m <sup>3</sup>	ISO 1183 <sup>1</sup>
Water Absorption				ISO 62 <sup>2</sup>
Saturation	4.8	--	%	
Equilibrium	1.2	--	%	
Viscosity number	140	--	cm <sup>3</sup> /g	ISO 307, 1157, 1628 <sup>3</sup>
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile modulus	15500	10500	MPa	ISO 527-2 <sup>4</sup>
Tensile Stress (Break)	210	150	MPa	ISO 527-2 <sup>5</sup>
Tensile Strain (Break)	2.5	4.0	%	ISO 527-2 <sup>6</sup>
Flexural Stress <sup>7</sup>	320	230	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy notched impact strength				ISO 179/1eA <sup>8</sup>
-30°C	13.0	--	kJ/m <sup>2</sup>	
23°C	15.0	17.0	kJ/m <sup>2</sup>	
Charpy impact strength				ISO 179/1eU <sup>9</sup>
-30°C	75.0	--	kJ/m <sup>2</sup>	
23°C	95.0	105	kJ/m <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2 <sup>10</sup>
0.45 MPa	215	--	°C	
1.8 MPa	210	--	°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 <sup>11</sup>
Dielectric Constant (1 MHz)	3.90	6.00		IEC 60250
Dissipation Factor (1 MHz)	0.015	0.15		IEC 60250 <sup>12</sup>
Comparative tracking index	550	--		IEC 60112 <sup>13</sup>
Injection	Dry	Unit		
Processing (Melt) Temp	260 to 290		°C	
Mold Temperature	80.0 to 120		°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
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.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
12.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

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