

# Product Comparison

## Technical Data

### Product Description

TECHNYL®  
C 218 MB40 V20 BK  
(Dry)

\*Previously DOMAMID 6GM6020H2 211 BK

Polyamide 6, 60% glass fiber and mineral filler, heat-aging stabilized, for injection moulding, black

Generic  
Nylon 6 - Glass Fiber\Mineral

This data represents typical values that have been calculated from all products classified as: Generic Nylon 6 - Glass Fiber\Mineral

This information is provided for comparative purposes only.

General	TECHNYL® C 218 MB40 V20 BK (Dry)	Generic Nylon 6 - Glass Fiber\Mineral
Manufacturer / Supplier	<ul style="list-style-type: none"> <li>• DOMO Engineering Plastics</li> </ul>	<ul style="list-style-type: none"> <li>• Generic</li> </ul>
Generic Symbol	<ul style="list-style-type: none"> <li>• Nylon 6</li> </ul>	<ul style="list-style-type: none"> <li>• Nylon 6</li> </ul>
Material Status	<ul style="list-style-type: none"> <li>• Commercial: Active</li> </ul>	<ul style="list-style-type: none"> <li>• Commercial: Active</li> </ul>
Search for UL Yellow Card	<ul style="list-style-type: none"> <li>• <b>DOMO Engineering Plastics</b></li> <li>• <b>TECHNYL®</b></li> </ul>	--
Availability	<ul style="list-style-type: none"> <li>• Africa &amp; Middle East</li> <li>• Asia Pacific</li> <li>• Europe</li> <li>• Latin America</li> <li>• North America</li> </ul>	<ul style="list-style-type: none"> <li>• Africa &amp; Middle East</li> <li>• Asia Pacific</li> <li>• Europe</li> <li>• Latin America</li> <li>• North America</li> </ul>
Filler / Reinforcement	<ul style="list-style-type: none"> <li>• Glass Fiber\Mineral, 60% Filler by Weight</li> </ul>	<ul style="list-style-type: none"> <li>• Glass Fiber\Mineral</li> </ul>
Additive	<ul style="list-style-type: none"> <li>• Heat Stabilizer</li> </ul>	--
Features	<ul style="list-style-type: none"> <li>• Heat Aging Resistant</li> <li>• Heat Stabilized</li> </ul>	--
RoHS Compliance	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> </ul>	--
Processing Method	<ul style="list-style-type: none"> <li>• Injection Molding</li> </ul>	--
Resin ID (ISO 1043)	<ul style="list-style-type: none"> <li>• PA6-(GF20+MD40)</li> </ul>	--
ISO Designation (ISO 16396)	<ul style="list-style-type: none"> <li>• PA6,(GF+MD)60,M1H,S14-090</li> </ul>	--



Physical	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Density / Specific Gravity					
--	--	--	1.47 to 1.49	g/cm³	ASTM D792
--	1.95	--	1.34 to 1.50	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	30	--	--	cm³/10min	ISO 1133
Molding Shrinkage					
Flow	--	--	0.30 to 0.56	%	ASTM D955
--	--	--	0.076 to 1.0	%	ISO 294-4
Across Flow	0.50 to 0.70	--	--	%	ISO 294-4
Flow	0.10 to 0.30	--	--	%	ISO 294-4
Water Absorption					
24 hr	--	--	0.67 to 1.5	%	ASTM D570
Saturation, 23°C	--	--	3.4 to 7.1	%	ISO 62
Equilibrium, 23°C, 50% RH	1.3	--	0.95 to 2.2	%	ISO 62
Mechanical	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Tensile Modulus					
--	--	--	190 to 10300	MPa	ASTM D638
--	9200	6800	3280 to 12100	MPa	ISO 527-1
Tensile Strength					
Yield	--	--	113 to 148	MPa	ASTM D638
Break	--	--	60.0 to 133	MPa	ASTM D638
Break	125	85.0	32.6 to 137	MPa	ISO 527-2
--	--	--	86.1 to 137	MPa	ASTM D638
--	--	--	104 to 125	MPa	ISO 527-2
Tensile Elongation					
Yield	--	--	2.5	%	ASTM D638
Break	--	--	2.5 to 4.1	%	ASTM D638
Break	3.0	6.0	1.6 to 3.4	%	ISO 527-2



Mechanical	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Flexural Modulus					
--	--	--	4780 to 9110	MPa	ASTM D790
--	9500	6700	1870 to 12300	MPa	ISO 178
Flexural Strength					
--	--	--	110 to 232	MPa	ASTM D790
--	--	--	118 to 202	MPa	ISO 178
Impact	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Charpy Notched Impact Strength					
--	--	--	2.8 to 10	kJ/m <sup>2</sup>	ISO 179
-30°C	10	10	--	kJ/m <sup>2</sup>	ISO 179/1eA
23°C	12	18	--	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength					
--	--	--	24 to 50	kJ/m <sup>2</sup>	ISO 179
-30°C	60	60	--	kJ/m <sup>2</sup>	ISO 179/1eU
23°C	60	65	--	kJ/m <sup>2</sup>	ISO 179/1eU
Notched Izod Impact					
--	--	--	29 to 70	J/m	ASTM D256
--	--	--	4.0 to 10	kJ/m <sup>2</sup>	ISO 180
Unnotched Izod Impact Strength					
--	--	--	4.0 to 41	kJ/m <sup>2</sup>	ISO 180
Hardness	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Rockwell Hardness	--	--	120 to 122		ASTM D785
Ball Indentation Hardness	--	--	190 to 213	MPa	ISO 2039-1



Thermal	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Deflection Temperature Under Load					
0.45 MPa, Unannealed	--	--	179 to 216	°C	ASTM D648
0.45 MPa, Unannealed	--	--	202 to 220	°C	ISO 75-2/B
1.8 MPa, Unannealed	--	--	185 to 206	°C	ASTM D648
1.8 MPa, Unannealed	--	--	174 to 205	°C	ISO 75-2/A
Continuous Use Temperature	--	--	95.0 to 180	°C	ASTM D794
Vicat Softening Temperature	--	--	200 to 220	°C	ISO 306
Melting Temperature					
--	--	--	220 to 223	°C	
--	--	--	220 to 222	°C	ISO 11357-3
-- <sup>2</sup>	221	--	--	°C	ISO 11357-3
--	--	--	216 to 221	°C	ASTM D3418
--	--	--	220	°C	ISO 3146
CLTE					
Flow	--	--	5.5E-6 to 3.1E-5	cm/cm/°C	ASTM D696
Flow	--	--	2.9E-5 to 5.0E-5	cm/cm/°C	ISO 11359-2
Transverse	--	--	5.0E-5 to 9.1E-5	cm/cm/°C	ISO 11359-2
Electrical	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Surface Resistivity	--	--	1.0E+10 to 1.0E+15	ohms	IEC 60093
Volume Resistivity					
--	--	--	1.0E+12 to 2.5E+15	ohms·cm	ASTM D257 IEC 60093
--	--	--	1.0E+12 to 2.5E+14	ohms·m	IEC 62631-3-1
Dielectric Strength					
--	--	--	3.5 to 23	kV/mm	ASTM D149
--	--	--	17 to 37	kV/mm	IEC 60243-1
Relative Permittivity					
--	--	--	3.39		IEC 60250
--	--	--	3.40		IEC 62631-2-1



Electrical	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Dissipation Factor	--	--	5.3E-3 to 0.020		IEC 60250
	--	--	5.0E-3 to 0.014		IEC 62631-2-1
Comparative Tracking Index	--	--	420 to 600	V	IEC 60112

Flammability	TECHNYL® C 218 MB40 V20 BK (Dry)	(Conditioned)	Generic Nylon 6 - Glass Fiber Mineral	Unit	Test Method
Burning Rate					
--	--	--	98 to 100	mm/min	ISO 3795
1.00 mm	< 100	--	--	mm/min	FMVSS 302
Glow Wire Flammability Index	--	--	952 to 960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	--	--	746 to 777	°C	IEC 60695-2-13

Injection	TECHNYL® C 218 MB40 V20 BK (Dry)	Generic Nylon 6 - Glass Fiber Mineral	Unit
Drying Temperature	75 to 85	79 to 81	°C
Drying Time	2.0 to 4.0	2.9 to 4.1	hr
Dew Point	< -30	-30	°C
Suggested Max Moisture	--	0.15 to 0.20	%
Rear Temperature	--	226 to 282	°C
Middle Temperature	--	244 to 282	°C
Front Temperature	--	257 to 283	°C
Nozzle Temperature	--	247 to 267	°C
Processing (Melt) Temp	260 to 290	250 to 291	°C
Mold Temperature	60 to 80	67 to 100	°C
Injection Pressure	--	84.1 to 86.3	MPa
Back Pressure	--	0.172 to 0.759	MPa
Screw Speed	--	45 to 76	rpm



## Injection Notes

Generic  
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## Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min



Where to Buy

Supplier	
TECHNYL® C 218 MB40 V20 BK	<p><b>DOMO Engineering Plastics</b>  <b>Telephone:</b> +49-33862139776 (Germany); +39-04640587676 (Italy)  <b>Web:</b> <a href="http://www.domochemicals.com">http://www.domochemicals.com</a></p>
Generic Nylon 6 - Glass Fiber\Mineral	<b>Generic</b>
Distributor	
TECHNYL® C 218 MB40 V20 BK	<p><b>AMP FRANCE</b>  <b>Telephone:</b> +33-3-8920-1390  <b>Web:</b> <a href="http://www.amp.fr/">http://www.amp.fr/</a>  <b>Availability:</b> France</p> <p><b>Bamberger Polymers, Inc.</b>  <i>Bamberger Polymers is a global distribution company. Contact Bamberger Polymers for availability of individual products by country.</i>  <b>Telephone:</b> 516-622-3600  <b>Web:</b> <a href="http://www.bambergerpolymers.com/">http://www.bambergerpolymers.com/</a>  <b>Availability:</b> Canada, Mexico, United States</p> <p><b>OZYANCE</b>  <b>Telephone:</b> +33-4-67-49-55-37  <b>Web:</b> <a href="http://www.ozyance.com/">http://www.ozyance.com/</a>  <b>Availability:</b> France</p> <p><b>PolySource</b>  <i>PolySource is a North American resin and plastics distributor. Please feel to reach out to your Technical Sales Account Manager. <a href="https://polysource.net/our-team/">https://polysource.net/our-team/</a></i>  <b>Telephone:</b> 816-540-5300  <b>Web:</b> <a href="http://www.polysource.net/">http://www.polysource.net/</a>  <b>Availability:</b> Canada, Mexico, United States</p> <p><b>Ultrapolymers</b>  <i>Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.</i>  <b>Telephone:</b> +32-11-57-95-57  <b>Web:</b> <a href="http://www.ultrapolymers.com/">http://www.ultrapolymers.com/</a>  <b>Availability:</b> Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Macedonia, Netherlands, Norway, Portugal, Romania, Serbia, Slovakia, Slovenia, South Africa, Spain, Sweden, Turkey, United Kingdom</p>
Generic Nylon 6 - Glass Fiber\Mineral	Please contact the supplier to find a distributor for Generic Nylon 6 - Glass Fiber\Mineral

