

**Product Information** **Ultramid®**

A 60G1 V30 GREY R7035 LPU

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**PA66-GF30 FR(40)**

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#### Product Information

Ultramid® A 60G1 V30 Grey R7035 LPU is a polyamide 66 based on a non-halogenated flame retardant system, reinforced with 30% of glass fiber, heat stabilized, laser markable for injection moulding. This grade offers excellent flame retardancy properties (UL 94, 5VA, GWIT) combined with excellent processing, mechanical and electrical performance. It can withstand temperatures of 160°C for over 6000 hours and has a UL F1 rating for weatherability resistance European Railways Certifications - EN 45545-2 HL3; European Railways Certifications - EN 45545-2 HL3

## Product Information

Typical values for uncoloured product at 23 °C <sup>1)</sup>	Test method	Unit	Values <sup>2)</sup>
<b>Physical</b>			
Water absorption, 24 h in water, 23 °C	ISO 62	%	<b>0.63</b>
Water absorption, equilibrium in water at 23°C	similar to ISO 62	%	<b>4</b>
Moisture absorption, equilibrium 23°C/50% r.h	similar to ISO 62	%	<b>1.70</b>
Density	ISO 1183	kg/m <sup>3</sup>	<b>1460 / -</b>
<b>Mechanical properties</b>			
			<b>dry / cond.</b>
Tensile modulus	ISO 527-1/-2	MPa	<b>10200 / 8000</b>
Stress at break	ISO 527-1/-2	MPa	<b>115 / 85</b>
Strain at break	ISO 527-1/-2	%	<b>1.8 / 2.2</b>
Flexural modulus	ISO 178	MPa	<b>10000 / 7500</b>
Flexural strength	ISO 178	MPa	<b>170 / 120</b>
Charpy impact strength ISO 179/1eU (-30°C)	ISO 179/1eU	kJ/m <sup>2</sup>	<b>30 / -</b>
Charpy impact strength ISO 179-1eU (23°C)	ISO 179/1eU	kJ/m <sup>2</sup>	<b>32 / 30</b>
Izod notched impact strength ASTM D 256 (23 °C)	ASTM D 256	J/m	<b>85 / -</b>
<b>Thermal properties</b>			
Melting temperature, DSC (10°C/min)	ISO 11357-1/-3	°C	<b>262</b>
<b>Electrical properties</b>			
			<b>dry / cond.</b>
Surface resistivity	IEC 62631-3-2	Ohm	<b>2E15 / -</b>
Volume resistivity	IEC 62631-3-1	Ohm*m	<b>6E12 / -</b>
Comparative tracking index, CTI, test liquid A	IEC 60112	-	<b>600 / -</b>
<b>Flammability</b>			
Burning behaviour at thickness 3.2 mm	UL-94, IEC 60695	class	<b>V-0</b>
Burning Behav. at 1.6 mm nom. thickn.	IEC 60695-11-10	class	<b>V-0</b>
Burning Behav. at thickness 0.8 mm	IEC 60695-11-10	class	<b>V-0</b>
Glow Wire Flammability Index (0.8 mm)	IEC 60695-2-12	°C	<b>960</b>
Glow Wire Flammability Index (1.6 mm)	IEC 60695-2-12	°C	<b>960</b>
Glow Wire Flammability Index (3.2 mm)	IEC 60695-2-12	°C	<b>960</b>
Glow Wire Ignition Temperature (0.8 mm)	IEC 60695-2-13	°C	<b>775</b>
Oxygen index	ISO 4589-1/-2	%	<b>33</b>

### Footnotes

1) If product name or properties don't state otherwise.

2) The asterisk symbol "\*" signifies inapplicable properties.

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