



## GRP Pultruded Ladder Systems Product Data Sheet

Product Range	GRP Pultruded Ladder Systems	<p>Image for reference only</p> 
Description	GRP Ladder System	
Key Features	<p>No corrosion Insulating Easy installation Self-extinguishing with zero Halogen Light and Robust Impact (Lengths) – IK10 (20 Joules) Impact (Fittings) – IK10 (20 Joules)</p>	
Dimensions	150x100mm to 900x150mm in 3m lengths	
Material(s)	<p>Glass Reinforced Polyester (GRP) Standard colour RAL7032</p>	
Compliance / Standards(s)	<p>CE &amp; UKCA Marked Low Voltage Directive 2014/35/EU The Electrical Equipment (Safety) Regulations 2016 BS 7671:2018 Refer to sheet 2 for complete list</p>	
Packaging	Recyclable	

Properties	Standards references & Standards Designations	PRESS type resin R96	PULTRUSION type resin R6204	Units
<b>Fire Behaviour</b>				
Inflammability	IEC 695-2-1 Glow Wire test	960	960	°C
Inflammability	UL 94 Test for flammability of plastic materials	V0	V0	-
Flammability	NF P 92-507 Fire Behaviour of Building Materials	M3	M2	-
Spread of Flame	ASTM E84 Surface burning characteristics of building materials	35	35	Index FSI
Spread of Flame	BS 476 Part 7 Surface spread of flame test for materials	Class 2	Class 2	-
Fire Propagation	BS 476 Part 6 Fire Propagation test for materials	18,3	14,1	Index
Oxygen & Smoke Index	NF F 16-101 Fire Behaviour of materials for rolling stock	I2 (>32) F0 (<5;	I2 (>32) F0 (<20;	-
Smoke	BS 6853 App 52 Fire Precautions in the design and construction of rolling stock	10,47 / 11,23	17,34 / 18,74	Index
Oxygen Index	ASTM D 2863	> 35	-	%
Fire Protection Index	EMPA	5.3	5.3	Index
Fire Standard	DIN 4102	B2	B2	-
Fire Standard	IEC 332-3 Fire Resistance of Cable	Passed		
<b>Mechanical Behaviour</b>				
Breaking Point	NEMA FG1 Fibre glass cable ladder systems	N/A	A to C Class	-
Tensile Strength at Break Point	DIN 53455 / ISO 527	37	155	MPa
Modulus of Elasticity	DIN 53457 / ISO 527-4	5000< <7000	10000< <15000	MPa
Choc Resistance	DIN 53453	27 / IPxx7	80 / 25	kJ/m m <sup>2</sup>
Heat Resistance	VSM 77116 Martens Point	-90	-200 / 80	°C
Accelerated Aging	ISO 4892-2 Mechanical UV Resistance	Excellent	Excellent	-
Degrees of Protection	NF EN 50102 Degrees of Protection against mechanical impact	IK10	IK09 – IK10	-
<b>Electrical Behaviour</b>				
Surface Resistivity	DIN 53482 / EN 50014	~10 <sup>12</sup>	~10 <sup>11</sup>	Ω
Volume Resistivity	DIN 53482	~10 <sup>13</sup>	~10 <sup>12</sup>	Ωm
Breakage Voltage	IEC 243-1	> 15	> 15	kV/m m