

## FLEXIBLE PVC TECHNICAL SPECIFICATION

### Economy Welding Grade

PROPERTY	STANDARD	UNIT	STANDARD PVC	POLAR PVC	SUPER POLAR PVC	WELDING GRADE	DESCRIPTION
Light Transmittance	ASTM D1003	%	85	85	85	85	Visible light quantity transmitted through the material
Shore A Hardness	EN ISO 868	Sh A	80	65	62	80	Index based on a flat indenter's penetration depth. Scale from 0 (soft) to 100 (hard)
Tearing Resistance	DIN 53515	N/mm	50	28	25	50	Minimum tensile stress required to tear a pre-slit sample.
Tensile Strength at Break	ASTM D638	N/mm <sup>2</sup>	16	12	10	16	Maximum tensile stress that a material can be subjected to before break.
Elongation At Break	EN ISO 527-2	%	340	390	420	340	Elongation of the specimen at the break point under tensile stress.
Residual Elong. (after break)	-	%	68	76	80	68	Permanent elongation of the specimen measured after rupture in a tensile test.
Thermal Conductivity	ASTM C177	W/m.k	0,16	0,16	0,16	0,16	Ability to conduct heat. The lower it, the more insulation.
Cold Blend Brittle Temp	ISO 8570	°C	-35	-40	-65	-35	Temperature at which the specimen break under torsion stree. Brittle point (CLASH & BERG)
Min Usage Temp Max Usage Temp	EN 1876	°C °C	-15 50	-25 30	-60 15	-15 50	Temperature range where the material keep its mechanical properties (flexibility).
Vicat Softening Temp	EN ISO 306		50	48	46	50	Temperature at which the specimen is penetrated to a depth of 1mm by a 1kg flat indenter of 1sq. Mm
Specific Heat Capacity	ISO 11357	kJ/kg.K	1,6	1,6	1,6	1,6	Heat energy required to increase the temperature of one kilogram of the material by one degree celcius.
Sound Reduction	DIN 52210	dB	>35	>35	>35	>35	Average sound level (freq. 0,1 to 3,2 kHz) decreased by a 1,76 sq.m and 5mm thick PVC Curtain
Fire Retardance	NF P 92-507 AS/NZS 3837 DIN 4102	Grade	Grp4 B2	-	-	Grp4 B2	Standard Classifications of material self-extinguishing and resistance to combustion. Welding Classifcation as per EN1598 UK test.
UV/IR Filter	En1598	Filter	-	-	-	Yes	Ability to filter welding rays allowing the use of this material as a welding protection screen - see EN Spec 1598 Welding test authorisation.
UV Resistance	ISO 4892	-	Yes	Yes	Yes	Yes	Ability to resist to UV (sun, welding arc).
Charge Buildup	IEC 61087	Sparks	Yes	Yes	Yes	Yes	Earthered sample is rubbed with cotton, acrylic and nylon rubbers. At electrode approach, spark appears or doesn't.
Surface Resistivity	IEC 60093	Ω/□	4.10 <sup>13</sup>	4.10 <sup>13</sup>		4.10 <sup>13</sup>	Material surface electric resistivity measured with a 500 V direct voltage.
Water Absorption	EN ISO 62	%					Material mass variation after exposure to humid conditions. (<0 if released / >0 if absorbed)
Anti-Insect	-	-	No	No	No	No	Special ability to keep insects away. (Food processing plants, tropical regions)
Density	ASTM D792	g/cm <sup>3</sup>	1,22	1,18	1,18	1,22	Mass per unit volume.

Rayflex Group reserves the right to alter any of the elements quoted in the above specification without prior notice.

**FOR ANY QUESTIONS OR COMMENTS, PLEASE CONTACT OUR EXPERIENCED TEAM.**