

Newlec PVC Cable Management Material Specification



PVCu

PVCu is used for the production of extrusion and mouldings and is universally accepted as having the most suitable properties for use within the electrical industry.

Standards and Approvals

All PVCu products are manufactured in accordance with the requirements of BS EN 50085: Parts 1 and 21, BS 4678: Part 4, BS EN 61386: Parts 1, 21 and 23, BS6099 and BS 4662 where relevant. The PVCu material used has been tested by an approved laboratory in accordance with the requirements of the following British Standards: BS 4607: Part 1 and BS 476: Part 7.

CE Marking

All relevant products are CE marked, confirming that they meet the EMC and LV directives.

Performance

High impact resistance under normal climatic conditions, BS 4678: medium.

DESCRIPTION		
IMPACT RESISTANCE	DUTY	
CHARPY NOTCHED IMPACT STRENGTH		25kJ/m ²
TENSILE STRENGTH	AT YIELD	34.62 N/mm ²
	AT BREAK	42.00 N/mm ²

Fire Performance

The PVCu materials used in the manufacture of cable management products are non-flame propagating in accordance with BS EN 50085, BS EN 61386 and BS 4678. Extrusion material has been tested in an accredited laboratory in accordance with the requirements of BS 476: Part 7 and has achieved a Class 1Y classification. Moulding material has been tested by an accredited laboratory and conforms to IEC 60695-2-11 at a severity of 750°C for Conduit and 650°C Trunking.

Thermal Properties

All PVCu products are designed to accommodate local thermal expansion. Fitting instructions explain the procedure required to deal with the differential movement at the interface with the building fabric.

DESCRIPTION	
COEFFICIENT OF LINEAR EXPANSION	5.5 x 10 ⁻⁵ per °C (5mm/3000mm) with a temperature rise of 25°C
OPERATING TEMPERATURE	-5C to 60°C
VICAT SOFTENING POINT	81°C
THERMAL CONDUCTIVITY	0.19W/m/k

PVCu is non-corrosive and not affected by sea water. It has excellent resistance to mineral acids, alkalis and detergents, good resistance to alcohols but liable to attack from solvents such as ketones, aromatics and hydrocarbons.

Electrical

Biological non-conductive.

DESCRIPTION	
DIELECTRIC STRENGTH	40 kV/mm in DBP
	40 kV/mm in tx oil
RESISTIVITY	1014 Ohms cm

Biological

Resistant to vermin and termites.

Workability

All PVCu products are lightweight and can be readily cut and drilled using hand tools. Short component lengths can be readily incorporated, reducing wastage of material. All covers and accessories are manufactured to fine tolerances to ensure a tight fit with ease of removal. Stop ends are secured to the carriers.

Durability

PVCu products are stable and will maintain their performance characteristics in accordance with the terms and conditions described above.

Maintenance

Clip-on covers and interchangeable accessories provide continuous accessibility for rewiring, extensions and modifications to an installation. Covers and accessories can be cleaned with a damp cloth and household detergent. The surface can be decorated with commercial paints if required.

Mechanical Performance

Trunkings: Impact resistance under normal climatic conditions, BS EN 50085 or BS 4678: medium duty.

Conduit: Impact resistance under normal climatic conditions, BS EN 61386 or BS 6099: heavy or medium duty where relevant.