

PERFORMANCE OF THE MATERIALS WHEN FACED WITH EXTERNAL AGENTS

In all types of installations the electrical cables may have to withstand unfavourable conditions caused by the installation itself or by external agents. These factors significantly affect the durability and the life of the cables. Therefore, the materials employed in the insulation and the sheaths should be the most suitable for these unfavourable conditions. The following table indicates the main compounds and their performance level:

Material	PVC Polyvinyl Chloride	PE Polyethylene	EPR Ethylene Propylene	EVA Ethylene Vinyl Acetate	SI Silicon	SBR Natural & Synthetic Rubber	AN/PVC Acrylonitrile PVC	PCP Neoprene	CSP Hypalon	Fluorates Teflon Tefzel	Nitrile PVC Nitrile Rubber	TPR Thermoplastic Rubber	XLPE Cross Linked Polyethylene	PU Polyurethane
Thermoplastic / Vulcanized	T	T	V	V	V	V	V	V	V	T	T	T	V	T
Operating Temp. °C	70	70	90	120	180	70	80	80	100	>200	70	70	90	100
Mechanical Characteristics	B-E	B-E	R	R	P	R-B	B	B	B	E	B	R	B	E
Performance With Oil	R	B	R	R	P	R	B-E	B	B	E	B	R	R	B
Performance with Gas-Oil	R	R-B	P	R	P	P	B	R-B	E	E	R-B	P-R	P	B
Performance with Low Temperature	R-B	E	E	B	E	R	R-B	B	B	B	R-B	B	E	E
Performance with Ozone	E	B	E	B	B	R	B	R-B	B-E	B	E	B-E	B-E	B
Abrasion	E	E	P	R	P	B	B	B-E	B-E	E	B	R	E	E
H ₂ O Absorption	B	E	E	B-E	B-E	R	B	B-E	B	E	B	B	E	R
Tearing	B	E	P	P	P	P	R-B	B	B-E	E	R-B	R-P	E	E
Performance with Flame	B	P	P	P	P	P	R	B	B	E	B	E	P	P
Performance with Weathering	E	E	B	B	B	P	B-E	B	B-E	E	B-E	B	B	B
Solvent Resistance:														
- Aliphatic	B-E	B-E	P	P	P	P	B	B	B	B	B	P	B-E	B
- Aromatic	B	B	P	P	P	P	R	R	R	B	B	P	B	B

P = Poor

R = Medium

B = Good

E = Excellent



"The Name For Service"

**CABLES
BRITAIN
LIMITED**