

## PROPERTIES OF INSULATION AND SHEATH MATERIALS

| DESIGNATIONS         |                              |                    |                                      | PROPERTIES (GUIDE VALUES) |               |                        |                              |                 |                                   |                     |          |               |       |
|----------------------|------------------------------|--------------------|--------------------------------------|---------------------------|---------------|------------------------|------------------------------|-----------------|-----------------------------------|---------------------|----------|---------------|-------|
| SYMBOL               | CHEMICAL                     | EUROPEAN REFERENCE | PERMISSIBLE OPERATING TEMPERATURE °C | MECHANICAL                |               |                        | THERMIC                      |                 |                                   | CHEMICAL RESISTANCE |          |               |       |
|                      |                              |                    |                                      | Tensile Strength          | Elongation mm | Resistance to Abrasion | Behaviour at Low Temperature | Flame Resistant | Corrosive Gases During Combustion | Oils & Fats         | Solvents | Diluted Acids | Water |
| <b>THERMOPLASTIC</b> |                              |                    |                                      |                           |               |                        |                              |                 |                                   |                     |          |               |       |
| PVC                  | Polyvinyl Chloride Compounds | Y                  | 70-105                               | 12.5-25                   | 125-350       |                        |                              |                 |                                   |                     |          |               |       |
| LDPE                 | Low-Density Polyethylene     | 2Y                 | 70                                   | 10-20                     | 400-600       |                        |                              |                 | -                                 |                     |          |               |       |
| PE                   | High-Density Polyethylene    | 2X                 | 90                                   | 25-40                     | 500-1000      |                        |                              |                 | -                                 |                     |          |               |       |
| XLPE                 | Cross-Linked Polyethylene    | 2X                 | 90                                   | 12.5-20                   | 300-450       |                        |                              |                 | -                                 |                     |          |               |       |
| PUR                  | Polyurethane                 | 11Y                | 80                                   | 35-50                     | 500-700       |                        |                              |                 | -                                 |                     |          |               |       |
| Si                   | Silicone Rubber              | 2G                 | 180                                  | 5-10                      | 300-600       |                        |                              |                 | -                                 |                     |          |               |       |
| EPR                  | Ethylene-Propylene Rubber    | 3G                 | 90                                   | 5-10                      | 300-500       |                        |                              |                 | -                                 |                     |          |               |       |
| PCP                  | Polychloroprene              | 5G                 | 60-90                                | 5-20                      | 500-800       |                        |                              |                 |                                   |                     |          |               |       |
| CPE                  | Chlorinated Polyethylene     | 9G                 | 80-100                               | 8-20                      | 350-650       |                        |                              |                 |                                   |                     |          |               |       |
| LSZH                 | Low Smoke Zero Halogen       | H                  | 70-90                                | 5-1.2                     | >125          |                        |                              |                 | -                                 |                     |          |               |       |

**KEY:**



Very Good



Good



Average



Bad



Hydrogen Chloride