

# UHMW PE

## Details

This plastic is extremely tough and has high resistance to abrasion and wear. It is corrosion resistant and self-lubricating. It has excellent mechanical properties even in sub-zero conditions. It is used in conveyor guides, wear pads, chemical tanks etc. it is available in either sheet or rod form and has easy machinability.

## Key Features

Self-lubricating • Resistant to abrasion • Corrosion resistant

## Thermal Properties

Property	Value
Heat deflection [°C]	69
Glasstransitiontemperature [°C]	-150
Vicat softening temperature [°C]	128
Coefficient of thermal expansion [K <sup>-1</sup> · 10 <sup>-6</sup> ]	130
Thermal conductivity [W/m · K]	0.41
Specific heat capacity [J/kg · K]	1840
Melting point [°C]	135

## Mechanical Properties

Property	Value
Tensile strength [MPa]	17
Modulus of elasticity [GPa]	0.7
Flexural strength [MPa]	26
Flexural modulus [GPa]	0.8
Hardness	64
Elongation at break [%]	11

## Physical Properties

Property	Value
Density [g/cm <sup>3</sup> ]	0.93
Water Absorption [%]	0.005
Electrical Resistivity [ohm-cm]	$16 \times 10^{15}$