

APSOplast® PE-HMW red-brown

Engineering Plastic Technology Technical Data Sheet

Application purpose and characteristics

Environmental and disposal technology, lining technology, cutting boards.

Cutting boards and machine parts used in the foodstuff industry (e.g. meat, fish, poultry, and fruit and vegetable processing, etc.)

The color red-brown is particularly suitable for processing meat.

Excellent mechanical properties, very wear, cutting and scratch resistant, physiologically safe.

Product description

Material name, long description	Polyethylen high molecular weight
Material name, short description	PE-HMW
Material Code	PE-HMW 00.026-01
Density	0.96 g/cm ³
Color	red-brown

Mechanical properties

Modulus of elasticity and tension	Test value: ≥ 800 MPa Test norm: ISO 527
Yield stress	Test value: ≥ 20 MPa Test norm: ISO 527
Elongation at yield	Test value: 10 % Test norm: ISO 527
Elongation at break	Test value: ≥ 500 % Test norm: ISO 527
Notch impact strength	Test value: kein Bruch kJ/m ² Test norm: ISO 179
Impact strength	Test value: ≥ 15 kJ/m ² Test norm: ISO 11542-2 Test parameter: charpy
Shore hardness	Test value: 63 Shore D Test norm: ISO 868
Ball indentation hardness	Test value: 50 MPa Test norm: ISO 2039-1

Thermal properties

Min. operating temperature	Test value: -60 °C
Max. operating temperature long term	Test value: 80 °C
Crystalline melting point	Test value: 135 °C Test norm: ISO 3146
Coefficient of linear thermal expansion	Test value: $1.5 - 2.0 \cdot 10^{-4} \text{ K}^{-1}$ Test norm: DIN 53752 Test parameter: +23 bis +80°C
Thermal conductivity	Test value: 0.4 W/m·K Test parameter: +23°C

Electrical properties

Volume resistivity	Test value: 10^{12} Ohm·cm Test norm: IEC 60093
Surface resistivity	Test value: 10^{12} Ohm Test norm: DIN IEC 60093

Other properties

Flammability	Test value: HB Test norm: UL 94 Test parameter: 3.2 mm
	Test value: B2 Test norm: DIN 4102 Test parameter: ≥ 1 mm
Water absorption at saturation	Test value: ≤ 0.01 %

Approvals

- 10/2011/EU
- 1935/2004/EG
- GMP 2023/2006/EG
- FDA 21 CFR 177.1520; CFR 178.3297



EC No.1935:2004

