

# TECHNICAL DATA SHEET

## POLYETHYLENE TIPELIN FS 471-02

### HDPE for blown film

TIPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN

The joint product portfolio of TVK and SLOVNAFT provides infinite opportunities

#### DESCRIPTION

**TIPELIN FS 471-02** is a film grade of high density polyethylene copolymer (with hexen-1 as comonomer) grade. The product has high molecular mass, very good Tear strength and Dart drop resistance, low gel content, good vapour barrier properties. The grade contains antioxidants and acid scavenger.

#### APPLICATIONS

**TIPELIN FS 471-02** is recommended for extra thin packaging films, bags, shopping bags and garbage bags

**TIPELIN FS 471-02** is suitable for food contact. The product complies with Food Contact Regulations

#### PROPERTIES

	Test method	Unit	Typical value
Melt Mass-Flow Rate (MFR) (190 °C /2.16 kg)	ISO 1133-1	g/10 min	0.18
Melt Mass-Flow Rate (MFR) (190 °C /5.0 kg)	ISO 1133-1	g/10 min	0.80
Melt Mass-Flow Rate (MFR) (190 °C /21.6 kg)	ISO 1133-1	g/10 min	15
Density (23 °C) *	ISO 1183-2	kg/m <sup>3</sup>	946
Tensile Strength at Yield (MD/TD)**	ISO 527-3	MPa	24/21
Tensile Strength at Break (MD/TD)**	ISO 527-3	MPa	53/45
Tensile Strain at Break (MD/TD)**	ISO 527-3	%	700/840
Elmendorf Tear Resistance (MD/TD)**	ISO 6383-2	cN	25/290
Dart Drop (F 50)**	ISO 7756-1 method A	g	78
Flexural Modulus *	ISO 178	MPa	1190
Spencer Impact Strength**	ASTM D 3420	MPa	36
Vicat Softening Temperature *	ISO 306/A 120	°C	125
Shore D Hardness *	ISO 868	-	63
OIT (200 °C) *	EN 728	min	70

Typical properties, not to be used as specification.

\* Average mechanical property values of several measurements carried out on standard pressed specimens (ISO 293) conditioned at room temperature (ISO 291).

\*\* Average mechanical property values of several measurements on film (MD = machine direction, TD = trans direction) thickness of 0.025 mm, blow up ratio 4:1.

#### PROCESSING

**TIPELIN FS 471-02** can be used in conventional extrusion machines.  
Recommended processing temperatures are 180-220 °C.