

FTEP Cable Liner

## FITCO® Liner FP100

Cable liner made of technical polymer (fluortep)

### Description

FITCO® Liner FP100 offers low friction performance resulting in good service efficiency. Another important feature of this liner is dimensional accuracy achieved by specially designed extrusion lines combined with inline laser measuring equipment. This will guarantee dimensional accuracy and will maintain a +/- 0.05mm tolerance on ID and OD, which compares to industry standards generally at +/- 0.08mm or +/- 0.10mm. Special additives improve the efficiency after an increased number of wear cycles. Laboratory tests confirm that FITCO® Liner FP100 cable liners offer many advantages compared to alternative polymers (e.g. HD, PBT, POM, Etc.). Furthermore FP100 features better durability and cost-effectiveness compared to PTFE.

### Application

Automatic transmission, hand brake cables, emergency release cables as well as light duty applications with challenging routings.

Shrinkage (Parallel): 1.4%

Shrinkage (Parallel, annealed): 0.2%

FTEP Liner - Performance	
Cycles	1,000,000
Initial Efficiency	85%
Final Efficiency	83%

Properties	Test Method	Typical Value
<b>Mechanical</b>		
Specific density	ISO 1183	1,31 g/cc
Efficiency (Molykote Lub. grease used)	Liner FP100: ID 2.5, OD 4.5	85%
Strain at break	ISO 527-2/1A, 50mm/min	70 MPa
Yield Stress	ISO 527-2/1A, 50mm/min	60 MPa
Tensile modulus	ISO 527-2/1A, 50mm/min	2800 MPa
<b>Thermal</b>		
Melt temperature	ISO 11357-1,2,3	235°C
Coefficient of Linear thermal expansion (CLTE Parallel -40-23°C)	ISO 11359-1/-2	0.75
Coefficient of Linear thermal expansion (CLTE Parallel 23-55°C)	ISO 11359-1/-2	1.09
Coefficient of Linear thermal expansion (CLTE Parallel 55-160°C)	ISO 11359-1/-2	1.45
Vicat Softening Temperature – 50N	ISO 306	175°C
Continuous operating temperature*	-	-40°C to 140°C
Short term peak temperature*	-	160°C
Flammability (1.0mm thickness)	DIN 75 200, ISO 3795; FMVSS 302	< 100 mm/min

\* Preliminary values, to be confirmed after long term testing