

Plastic Optic Fiber Characteristics

6 CHANNELS (Specially Designed for Explomet-fo-2000)

6x POF 1 / 2.2 [mm] Structure

Product Description		Specification		
		Minimum	Type	Maximum
Optical Fiber ESKA™ SK-40 Mitsubishi™	Core Material	Polymetyl-Metacrylate Resin		
	Clad Material	Fluorinated Polymer		
	Core Reflective Index	-----	1.49	-----
	Clad Reflective Index	-----	1.41	-----
	Reflective Index Profile	Step index		
	Numerical Aperture (NA)	-----	0.5	-----
	Core Diameter [μm]	920 μm	980 μm	1'040 μm
	Clad Diameter [μm]	940 μm	1000 μm	1'060 μm
	Core Number	6		
POF Jacket	Inner Jacket Material	Polyethylene		
	Inner diameter [mm]	2.13 mm	2.20 mm	2.27 mm
	Jacket Color	Black		
Reinforced Jacket	Jacket Material	Reinforced PVC Tube		
	Outer Diameter	9.8mm	10.00	10.2
	Jacket Color	Red or Yellow		
Approximative Weight		44.00 [g/m]		
Indication of UL Style Number		None		
6 Channels POF Cable		26m (Red), 51m (Yellow)		

**6 CHANNELS (Specially Designed for Explomet-fo-2000)
6x POF 1 / 2.2 [mm] Performance**

Product Description			Specification		
			Minimum	Type	Maximum
Maximum Rating	Storage Temperature [°C]	No Physical Change	-55	-----	70
	Operation temperature [°C]	No Deterioration in Optical Properties	-55	-----	70
	Operation Temperature under 95% RH [°C]	No Deterioration in Optical Properties	-----	-----	65
Transmission Loss	Attenuation (Collimated light) [dB/km]	650 [nm] (Ta = 25 °C)	-----	-----	160
		650 [nm] (Ta = operation temp)	-----	-----	170
		660 [nm] (Ta = operation temp)	-----	-----	265
	Bandwidth	Launch NA > Fiber NA	40 MHz.50m	-----	-----
Mechanical Characteristics	Minimum Bending Radius	(Ta: Operation temp.)	-----	25	-----
	Repetead Bending Endurance [Times]	Loss Increment ≤1dB 90° 25mmR, Dead Weight: 500g	10'000	-----	-----
	Tensile Strength [N]	Tensil Force at 5% Elongation in Conformity to the JIS C 6861	70	-----	-----

	<i>Twisting Endurance [Times]</i>	Loss Increment ≤ 1 dB Sample Length: 1[m], Tensile Force 4.9[N]	5	----	----
	<i>Impact Endurance [N.m]</i>	Loss Increment ≤ 1 dB in Conformity to the JIS C 6861	0.4	----	----

All tests are carried out under temperature of 25 °C unless otherwise specified.

Cross Section of 6 Channels POF Cable

