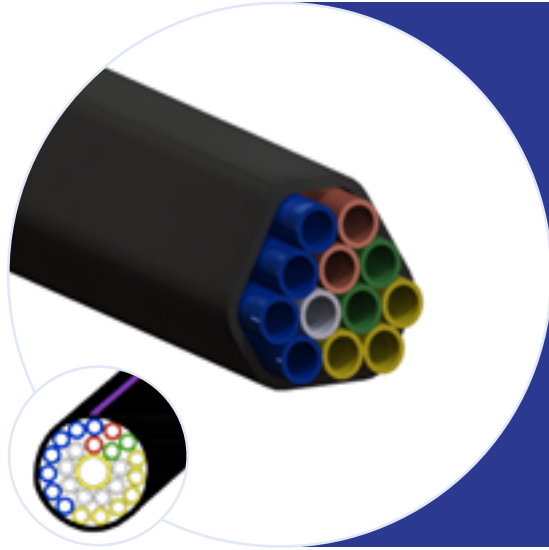


# GryphonX™ Micro Ducts & Bundle Ducts

## 5/3.5mm HDPE + LSOH Microducts



*GryphonX™ Micro Bundle Ducts assemblies of HDPE tubes, each tube with low friction inner sheath suitable for fibre blowing.*

*The bundle tube outer sheath is high quality black LSOH jacket which providing excellent fire retardant protection.*








### SPECIFICATION

#### MICRO DUCT : 5/3.5mm

Diameter	5.0 ± 0.1 mm (Outer)	3.5 ± 0.1 mm (Inner)
Sheath Thickness	0.75 ± 0.1 mm	
Sheath Material	HDPE	
Sheath Colour	Red, Green, Yellow, Blue & Beige	

#### BUNDLED DUCT

Colour & No. of Stripes	2 * Purple
Armoured	N/A
Sheath Thickness	1.2 ± 0.3 mm
Material of Ducts Sheath	LSOH
Colour of Duct Sheath	Black

Number of Ducts	2 WAYS	4 WAYS	7 WAYS	12 WAYS	19 WAYS	24 WAYS	24+1 WAYS
Part No.	MTD-0535P02ZBK	MTD-0535P04ZBK	MTD-0535P07ZBK	MTD-0535P12ZBK	MTD-0535P19ZBK	MTD-0535P24ZBK	MTD-0535P24RZBK
Cross Section							
Bundled Duct Dia (mm)	12.0 * 7.0 ± 0.6	12.4 ± 0.6	17.0 * 15.6 ± 0.6	22.4 * 20.4 ± 0.6	27.0 * 24.3 ± 0.6	32.0 * 24.3 ± 0.6	31.5 * 30.3 ± 0.6
Min Bend Dia. (mm)	Outer Diameter * 10 times						

# GryphonX™ Micro Ducts & Bundle Ducts

## 5/3.5mm HDPE + LSOH Microducts

### PHYSICAL & MECHANICAL PROPERTIES

Characteristic	Test Method	Acceptance Criteria
<b>MICRO DUCT</b>		
Outer Diameter	ASTM D2122	5.0 ± 0.1 mm
Inner Diameter	ASTM D 2122	3.5 ± 0.1 mm
Wall Thickness	ASTM D 2122	0.75 ± 0.1 mm
Ovality	ASTM D 2122	≤ 5%
Standard Dimension ratio	SDR= Outer dia./Wall thickness	6.6
Pressurization	5 min @ 15 bar each micro duct	No damage, no leaks
Crush	IEC 60794-1-2 Method E3, 1000 N load, 60 sec, 1 hour recovery time.	No residual deformation > 15% of inner and outer diameter.
Tensile Strength	IEC 60794-1-2 Method E1 ASTM F 2160, ASTM D 638 (Type IV), speed 50mm/min	20 – 30 N/mm <sup>2</sup>
Bend	IEC 60794-1-2 METHOD E11A	No residual deformation > 15% of inner and outer diameter.
Elongation at Break	IEC 60794-1-2 Method E1 ASTM F 2160 ASTM D 638 (Type IV), speed 50mm/min	Min 400%
Kink	IEC 60794-1-2 Method E8	Duct bent between 2 parallel supports 20*OD apart
Environmental Stress Crack Resistance	ASTM D 1693	No crack shall observed at 50 ± 2°C for 96 hours, when used 10% Igepal solution
Impact	IEC 60794-1-2 Method E4, 5 J Impact, 10 mm anvil, recovery time 1 hour.	No residual deformation > 15% of inner and outer diameter.
Repeated Bending	IEC 60794-1-2 Method E6 10*OD	No residual deformation > 15% of inner and outer diameter.
Co-efficient of Friction	Bell core, 750 mm Diameter, 450° loop, 5 kg tail mass	μ < 0.06
Heat Reversion	ISO 2505	110°C for 1 hrs (< 3%)
Colour	Visual inspection	See specification
Printing	Visual inspection	HERMESYS GRYPHONX MICRODUCT 5/3.5MM COIL NO. XXXXm MMY

# GryphonX™ Micro Ducts & Bundle Ducts

## 5/3.5mm HDPE + LSOH Microducts

BUNDLED DUCT		
Wall thickness (Sheathing)	ASTM D 2122	1.2 ± 0.3 mm
Colour of Stripes	Visual inspection	See specification
Pressurization	5 min @ 15 bar each micro duct	No damage, No leaks
Kink	IEC 60794-1-21 METHOD E10, 10*OD	No residual deformation > 15% of inner and outer diameter.
Crush	IEC 60794-1-2 Method E3, 1500 N load, 60 sec, 1 hour recovery time.	No residual deformation > 15% of inner and outer diameter.
Impact	IEC 60794-1-2 Method E4, 5 J Impact, 10 mm anvil, recovery time 1 hour.	No residual deformation > 15% of inner and outer diameter.
Colour & Sequence	Visual inspection.	See specification
Tensile Strength at Yield	IEC 60794-1-2 Method E1 ASTM F 2160, ASTM D 638 (Type IV), speed 50mm/min	20 – 30 N/mm <sup>2</sup>
Elongation at Break	IEC 60794-1-2 Method E1 ASTM F 2160, ASTM D 638 (Type IV), speed 50mm/mi	Min 400%
Bend Test	IEC 60794-1-2 Method E11A, 10*OD	No residual deformation > 15% of inner and outer diameter.
Printing	Visual inspection	HERMESYS GRYPHONX HDPE/LSOH MTD- XXXXXXXXXX MD <no. of way> * 5/3.5mm XXXXm MMYY