

**PE Ducts with Silicone Pre-Lubrication**



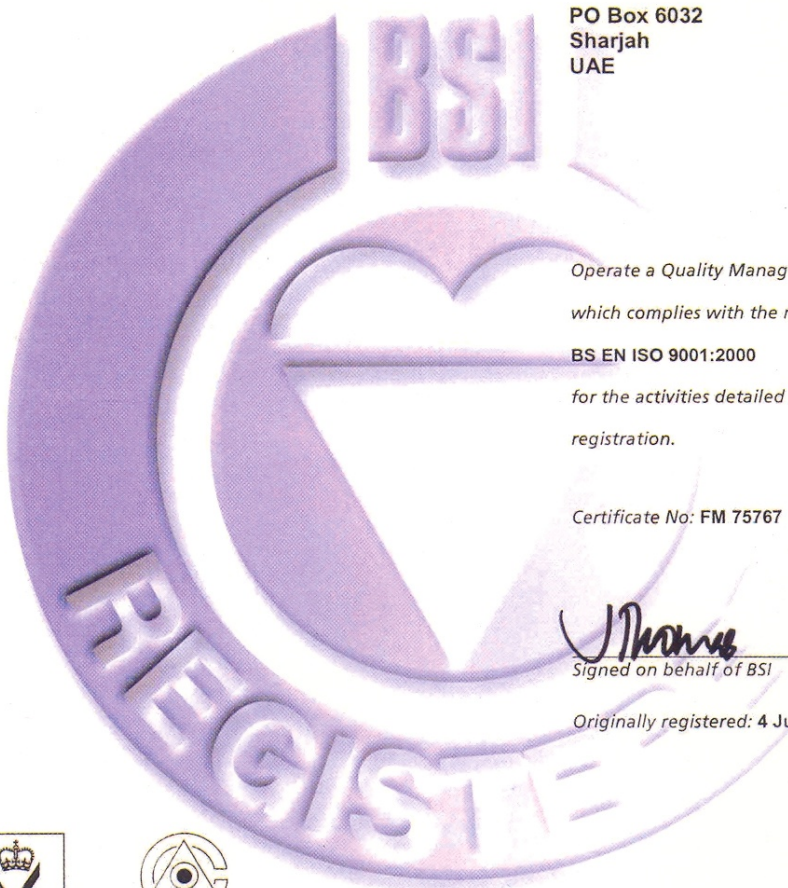


## CERTIFICATE OF REGISTRATION

Quality Management System

**Cosmoplast Industrial Co. (LLC)**

PO Box 6032  
Sharjah  
UAE



Operate a Quality Management System  
which complies with the requirements of  
**BS EN ISO 9001:2000**  
for the activities detailed in the scope of  
registration.

Certificate No: **FM 75767**

Signed on behalf of BSI

Originally registered: **4 Jun 2003**



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MC4402/ISSUE 1/5A/0102/UK/DP



ISO 4427/4437  
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## *PE Ducts with Silicone Pre-Lubrication...*

### **The Cosmoplast Advantage....**

With proven experience in manufacturing pipeline systems in the Gulf region for more than 25 years, Cosmoplast now offers a wide range of PE ducts pre-lubricated with silicone inner layer to help the telecommunication cable installation process.

Cosmoplast is continually striving to provide new and innovative products by utilizing the latest manufacturing techniques and materials available.

Today, the company utilizes some 100,000 square meters of land and in excess of 40,000 square meters of production facilities, plus employs over 1,000 personnel on a 24-hour-a-day production schedule.



### **The PE Ducts are backed by Cosmoplast's**

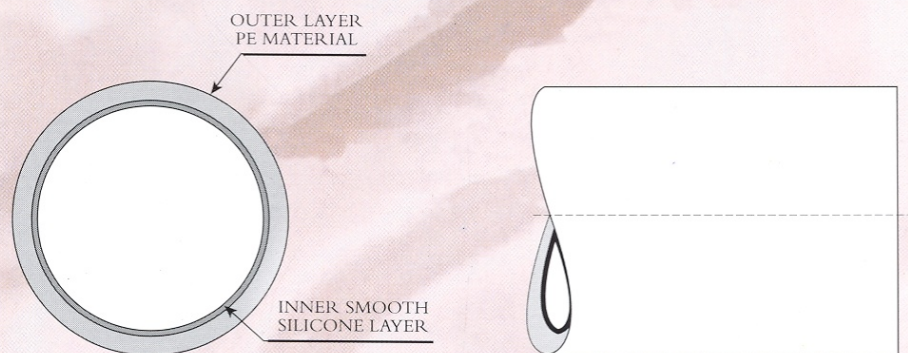
- **Proven research to suit customers' application needs.**
- **ISO 9001 Quality System accredited manufacturing environment.**
- **Stringent testing to international standards.**
- **Technical service and consulting back up.**
- **Installation advice and equipment.**
- **On-time delivery capability.**



## *PE Ducts with Silicone Pre-Lubrication...*

### **PE Ducts for Telecommunication Cables**

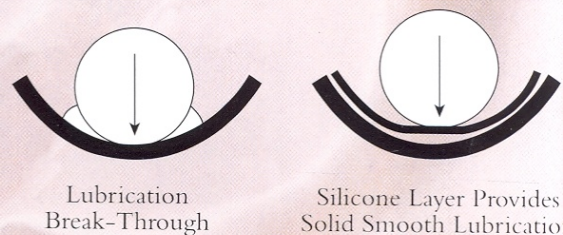
The polyethylene cable ducts offered by Cosmoplast are plastic cable ducting derived by combining the strength and flexibility of PE material with a suitable lubricating layer on the inner surface of the ducts. The construction of PE cable duct offered by Cosmoplast has an outer PE pipe with required lengths and diameter co-extruded along with a soft silicone inner sheath concentrically.



CROSS SECTION OF PE DUCT PRE-LUBRICATED WITH SILICONE

The adhesion of inner silicone sheath or liner to the PE duct is uniform and strong as it is uniformly co-extruded using double die head mechanism thereby ensuring seamless integration of inner silicone layer and outer PE duct.

The outer ducting of PE material provides the necessary mechanical and electrical properties to the fibre optical cables passing through them while the inner silicon sheath layer provides the necessary smooth, lubricated surface for the optical cables to be drawn through at the time of installation.





## *PE Ducts with Silicone Pre-Lubrication...*

### **Product Range:**

#### **Pre-lubricated Sub Duct**

PE ducts of various sizes having permanent silicone lubrication for laying Optical Fibre Cables (OFC). These are designed for easy installation, future repairs and maintenance. These permanently lubricated co-extruded sub ducts are used for laying Optical Fibre Cables in conjunction with the underground uPVC or PE ducts.

#### **Large Diameter PE Duct**

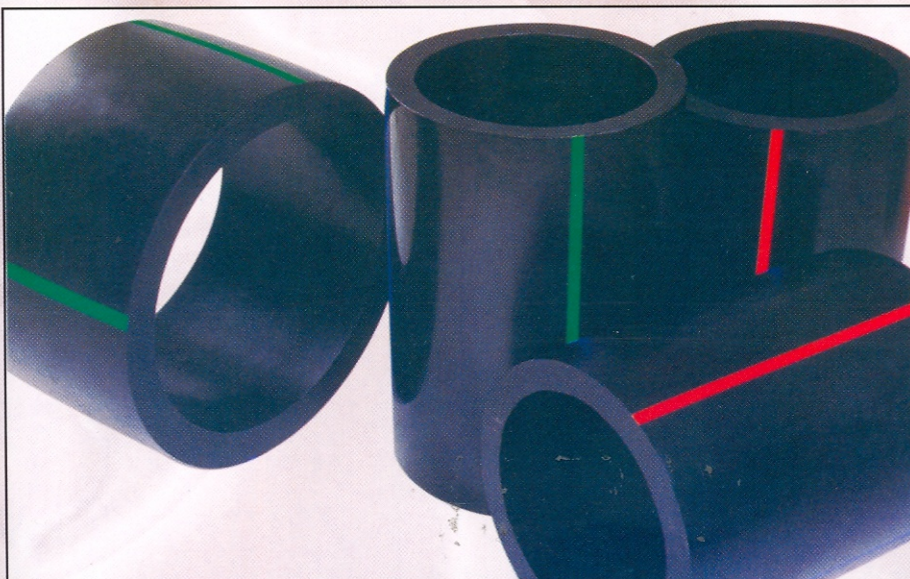
Suitable for direct burial as main ducts under highway and through water ways. An effective protection for OFC ducts as permanent pathway through toughest terrains.

#### **uPVC Ducts**

Suitable for use as underground cable conduits in concrete encasement as well as for laying through sand or soil encasement.

#### **Sockets**

Sockets and fittings to suit the specified PE main ducts and uPVC ducts are supplied.







## *PE Ducts with Silicone Pre-Lubrication...*



### **The salient features of the PE Cable Ducts with silicone inner liner are:**

▶ The ducts are manufactured in various diameters ranging from 20 mm to 16Q mm and are supplied in coils of 500 and 1000 meters or as straight lengths of 12 m.

▶ The ducts are flexible in nature enabling easy and continuous installation for longer distances.

▶ The flexibility of the ducts makes negotiation of cable bends easier.

▶ The silicone lubricating inner layer provides low co-efficient of friction to the optical cables drawn or blown through the duct thereby increasing the speed and ease of installation.

▶ The HDPE resin used for the duct is UV stabilized.

▶ The ducts are manufactured in different colours as per customer requirements.

▶ The ducts are printed with non-erasable markings. These are regularly spaced along the length for easy identification and traceability.

### **Packing**

- The ducts are supplied as coils on drums whose minimum inner diameter is 30 times the outer diameter of the Duct.
- Typically the ducts are wound in steel drums of following dimensions unless otherwise specified.

Inside drum diameter	=	900 mm
Drum width	=	1295 mm

- PE main ducts are supplied in coils of 1000 m lengths and special care is taken to ensure that these coils do not have memory.
- UPVC ducts are supplied in straight lengths of customer choice.





## PE Ducts with Silicone Pre- Lubrication...

### Specifications and Performance Characteristics:

Cosmoplast can offer a wide range of sizes and specifications to suit the customer defined requirements. A typical PE sub-duct with inner silicone layer for lubrication will have the following specifications and performance characteristics.

#### Typical Specifications of Sub Ducts :

Details★	Value
Inside/Outside Diameter	23/29 mm, 26/32 mm, 33/39 mm and 35/40 mm
Wall Thickness	3.0±0.2 mm
Length	≤ 1,000 m
Max Blowing Pressure	10 Bar
Recommended Installation Temperature Range	-10°C to + 50°C
Storage Temperature	< + 70°C Ambient
Material	HDPE - BS3412: 1992 class N
Bending Radius	Minimum 10 times of outer diameter
Inner Lubrication Thickness	0.35 mm approx.
Life Time	50 years minimal
Colour	Brown, Blue, Green and Black

★ Ducts of other sizes, colour and specifications can be made as per customer requirements.

#### Typical performance characteristics of Sub Ducts

Test	Test Method	Performance
Tensile Strength	ASTM D 638	> 15 N/mm <sup>2</sup>
Elongation at Break	ASTM D 638	≥ 350%
Coefficient of Friction	Bellcore Spec.	≤ 0.10
Crush Resistance	Bellcore Spec.	Deflection not greater than 10% with 50 KG load
Environmental Stress Cracking	ASTM D 1693	Doesn't crack or split ≥ 150 Hrs