



borougenajd PE CORRUGATED OPTICAL DUCTS (COD)

ABOUT US

Borouge Najd is a leading Saudi Arabian plastic pipe manufacturer since our establishment in 2020 we have constantly evolved to meet the requirements of our most demanding customers. Our aim is to provide sophisticated and diverse pipe solutions for hot and cold water applications, telecommunication networks, sewage and drainage systems together with water and gas infrastructure.

We are a certified to ISO Quality Management Systems organization and all our products comply with the appropriate World International (ISO) Standards.

Our products are tested extensively in our state-of-the-art laboratory, to ensure that the quality and performance are continuously maintained.

Our success is the result of the company's persistent commitment to continuous innovation and investment in technology, in the relentless pursuit of providing quality products and services. Today, we are pleased to offer a wide range of plastic products, divided into four categories:

// WE DESIGN, DEVELOP, MANUFACTURE
AND PROVIDE INNOVATIVE PIPE
SOLUTIONS THAT BEST MEET THE
NEEDS OF OUR CUSTOMERS //

CHARACTERISTICS OF borougenajd PE CORRUGATED OPTICAL DUCTS (COD)

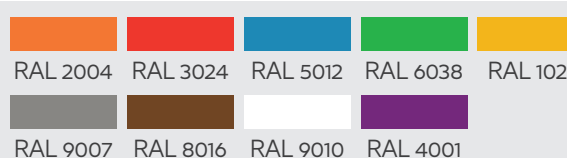
Installation

- Suitable for all methods of duct and cable installation, including trenching, direct plow and installation into existing main pathways (conduit pulling, slip lining and pipe bursting).
- Directional bore installations to breach obstacles like rivers or highways.

Area of applications

- Telecommunication network expansion
- CATV (television cables) and CCTV networks
- High speed fiber optic internet lines
- Medium and low voltage power cables
- Underseas communication networks

Colors



Custom colours for micro ducts and corrugated sheaths are available on request

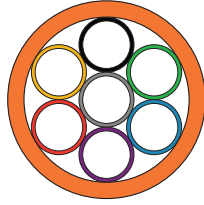
Corrugated optical ducts technology

- Corrugated optical ducts system comprises of a corrugated outer sheath and optional internal multiple micro ducts.
Corrugated outer sheath is made of HDPE.
Micro ducts are made from High Density Polyethylene (HDPE), whilst the inner surface of the micro ducts is made from permanent silicon material having a very low coefficient of friction.
- Factory bundles 1-way, 3-way, 5-way and 7-way configurations.

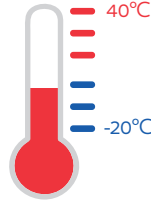
Optional

- Bundles with **silicone core** micro duct.
- Bundles with **copper wire** micro ducts for quick and easy localization.
- Thicker **corrugated over sheath** for demanding projects and installation.
- **Footage markings** such sequential or meter marking available on customer request

ADVANTAGES OF borougenajd PE CORRUGATED OPTICAL DUCTS (COD)



Multiple configurations and colors



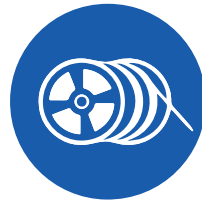
Operation, storage and installation at temperatures ranging from -20°C to +40°C



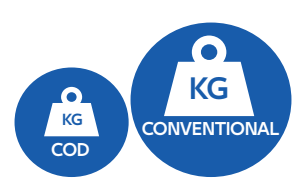
Fast and easy installation



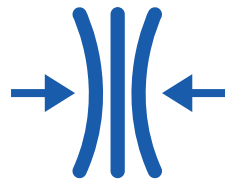
Resistant to ground movement due to flexibility of COD systems



Pull out resistance during installation



Lighter compared to conventional ducts



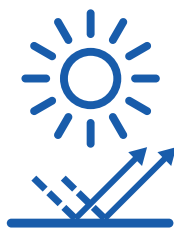
Excellent flexibility and shape recovery



Low electrical and thermal conductivity



Water infiltration resistance during storage, installation and operation



UV resistance during storage and installation



Corrosion free system operation



100% recyclable and sustainable systems

PRODUCT RANGE

Borougenajd corrugated optical ducts systems are available in different sizes and configurations as shown in the following table:

Type	Design configuration	Outer Diameter OD (mm)	Inner Diameter ID (mm)	Wall Thickness (mm)
COD empty 	COD main duct	77 ± 2	58 ± 2	2.5 ± 0.5
COD empty 	COD main duct	110 ± 2	90 ± 2	2.5 ± 0.5
COD with 7 subducts 	COD main duct	110 ± 2	90 ± 2	2.5 ± 0.5
	sub-ducts	29 ± 1	25 ± 1	2.0 ± 0.2
COD with 5 subducts 	COD main duct	110 ± 2	90 ± 2	2.5 ± 0.5
	sub-ducts	33 ± 1	28 ± 1	2.5 ± 0.5
COD with 3 subducts 	COD main duct	77 ± 2	58 ± 2	2.5 ± 0.5
	sub-ducts	27.2 ± 1	22.2 ± 1	2.5 ± 0.5
COD with 3 subducts 	COD main duct	110 ± 2	90 ± 2	2.5 ± 0.5
	sub-ducts	42 ± 1	36 ± 1	± 0.5

ACCESSORIES

Borougenajd offers a broad variety of accessories for corrugated optical ducts such as connectors, cutters and end-caps.



Line connectors



Manhole connectors



COD Cutter



COD connecting jig



COD end caps

Borougenajd also offers different sizes of subducts connectors with the following dimensions:

Sub-duct couplings	Dimensions			
	OD (mm)	ID (mm)	Wall thickness (mm)	Length (mm)
Sub-duct coupling for 29 mm OD sub-ducts, type 1	39	31	4±0.5	170
Sub-Duct coupling for 33 mm OD sub-ducts, type 2	43	35	4±0.5	170
Sub-Duct coupling for 42 mm OD sub-ducts, type 3	52	44	4±0.5	170
Sub-Duct coupling for 27.2 mm OD sub-ducts, type 4	37.2	29.2	4±0.5	170

// **BOROUGE NAJD PLASTIC FACTORY** SYSTEMS
PROVIDE THE HIGHEST LEVELS OF QUALITY AND
OUR TARGET IS TO EXCEED THE REQUIREMENTS
OF NATIONAL AND INTERNATIONAL STANDARDS .
THIS IS ACHIEVED THROUGH HIGHLY
CONTROLLED MANUFACTURING PROCESSES
AND THE IMPLEMENTATION OF A STATE-OF-THE-
ART QUALITY CONTROL SYSTEM WHICH COVERS
RAW MATERIAL, SYSTEM MANUFACTURE, PACKING, //
STORAGE, SUPPLY CHAIN AND POST-SALES SUPPORT



Saudi made

صنع بالسعودية



High quality

جودة عالية

بروج نجد
Borouge Najd

رؤية
2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

borougenajd.com

T +966 50 422 2131
E borouge.n@outlook.com

P.O Box 92937, Al Saly,
Riyadh, Saudi Arabia

بروج نجد
Borouge Najd