



forever safe

# 1979

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**It all begins when Emmanuel Kouvidis, an electrician–installer begins producing the first plastic conduits in his father’s café in the village of Tyliossos in Crete, Greece.**



# Today

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We are one of the top manufacturers of plastic piping systems for cable protection, sewage, and drainage in Europe.



**[45**  
YEARS

**for 45 years we design and produce the  
SAFEST plastic piping systems for cable  
protection, sewage and drainage...**

# ABOUT US

## Quick info



01

# OUR PREMISES 2001

**KOUVIDIS  
FACILITIES  
2001**

**A MILESTONE YEAR**



01

# KOUVIDIS PREMISES

2023

**NEW ERA**

New production area

New offices building

Warehouse expansion

New quality lab

7000 m<sup>2</sup> more space

6€ million investments

01

**QUALITY  
CONTROL  
LABORATORY  
IN 2023  
NEW ERA**



	Current (Test Value)
1	500V
2	900V
3	1000V
4	2000V
5	3000V

Ready, waiting for test start...



01

# ABOUT US

## QUICK INFO



**45 years**

of specialization in the production  
of plastic piping systems



**3 subsidiaries**

in Cyprus, Germany and Portugal



**1 subsidiary**

specialized in the supply  
chain management industry



**38 exporting**

countries



**4 distribution centers**

in Greece (Heraklion, Athens,  
Thessaloniki) & Cyprus (Nicosia)



**24 patent**

degrees



**20 fully automated**

production lines

# SUSTAINABILITY QUICK INFO



**Since 2006**

Implementation of management systems  
for quality, employees & environment  
(ISO 9001, ISO 14001, ISO 45001)



**100%**

Recyclable packaging



**70**

Privately owned low emission  
vehicles (50 of them belong to KLS)



**50%**

Renewable energy sources



**100%**

Energy saving  
KNX, BMS

01

# OUR PEOPLE

## 140 employees

100% increase (2017-2023)



01

# QUALITY ORIENTED PRODUCTS

## QUICK INFO



**VDE and Bureau Veritas marks approval** for most of our products

**VDE Approved Place of Manufacture**

**VDE test reports** according to EN 50642, EN 61034-2, EN 60764-2 for our halogen free series

# KLS KOUVIDIS LOGISTICS

new subsidiary company specialized in  
the supply chain management industry



01

# OUR GLOBAL PRESENCE

## QUICK INFO

38

Countries, including 3 subsidiaries and exclusive distributors

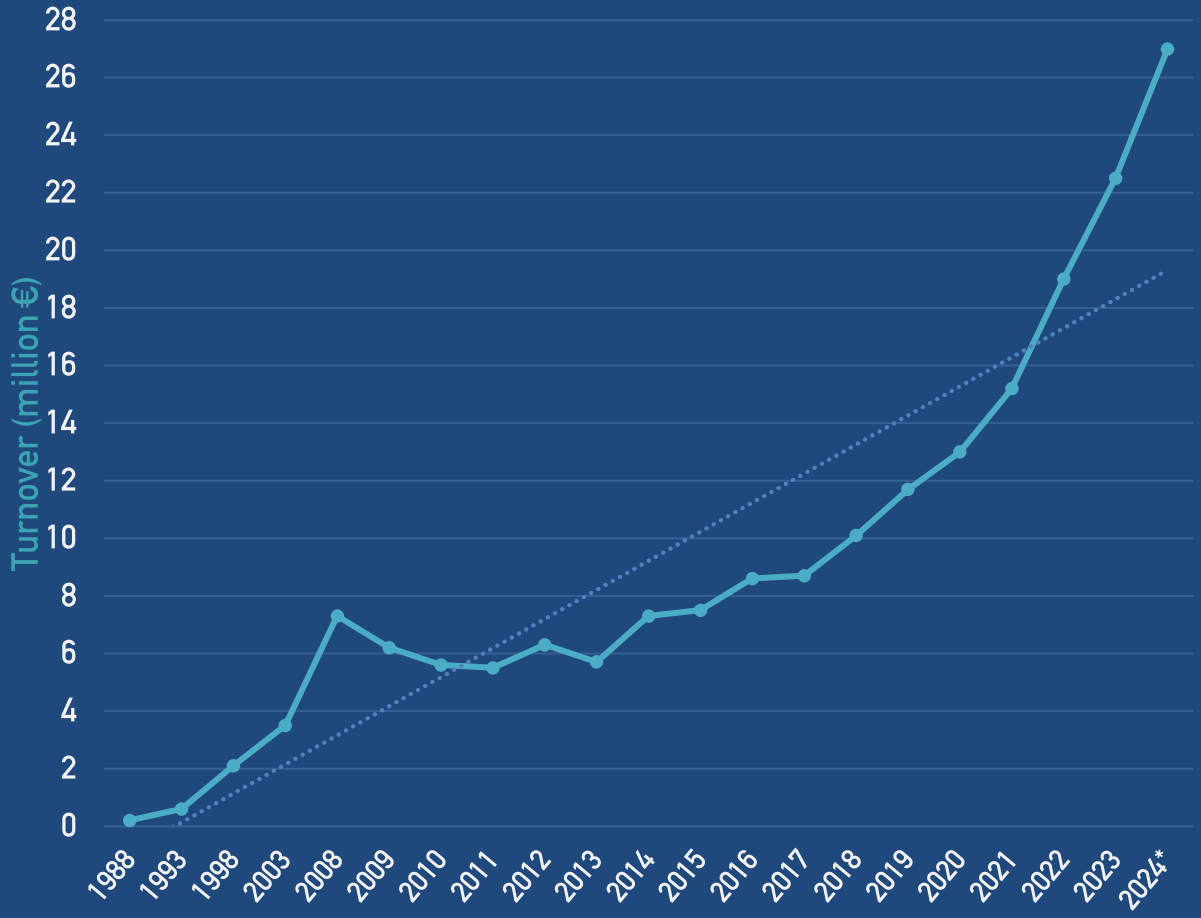
- KOUVIDIS premises
- ▲ Subsidiary company
- Distributor
- 📍 Customer



01

# DATA SALES

**+140%**  
Over the  
last 5 years



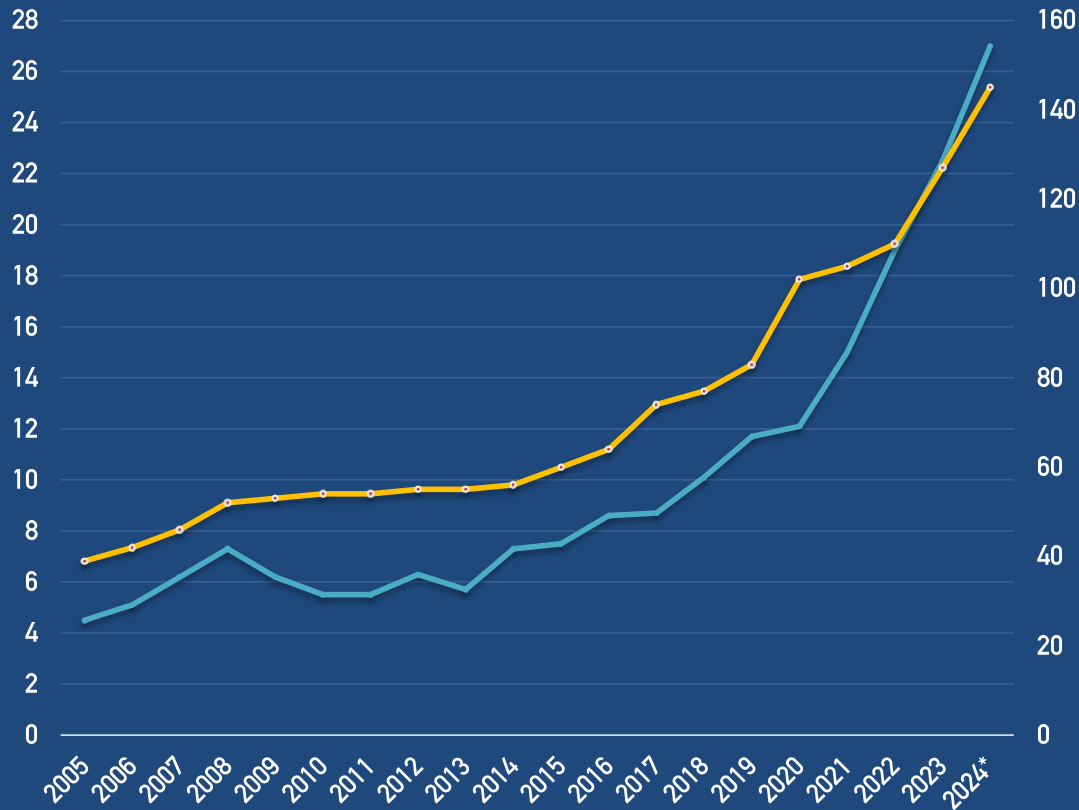
\*estimation based on current development rate

01

# DATA OUR PEOPLE

**+100%**

Increase of  
employees  
over the last  
7 years



— turnover (million €) —○— people

*\*estimation based on current development rate*

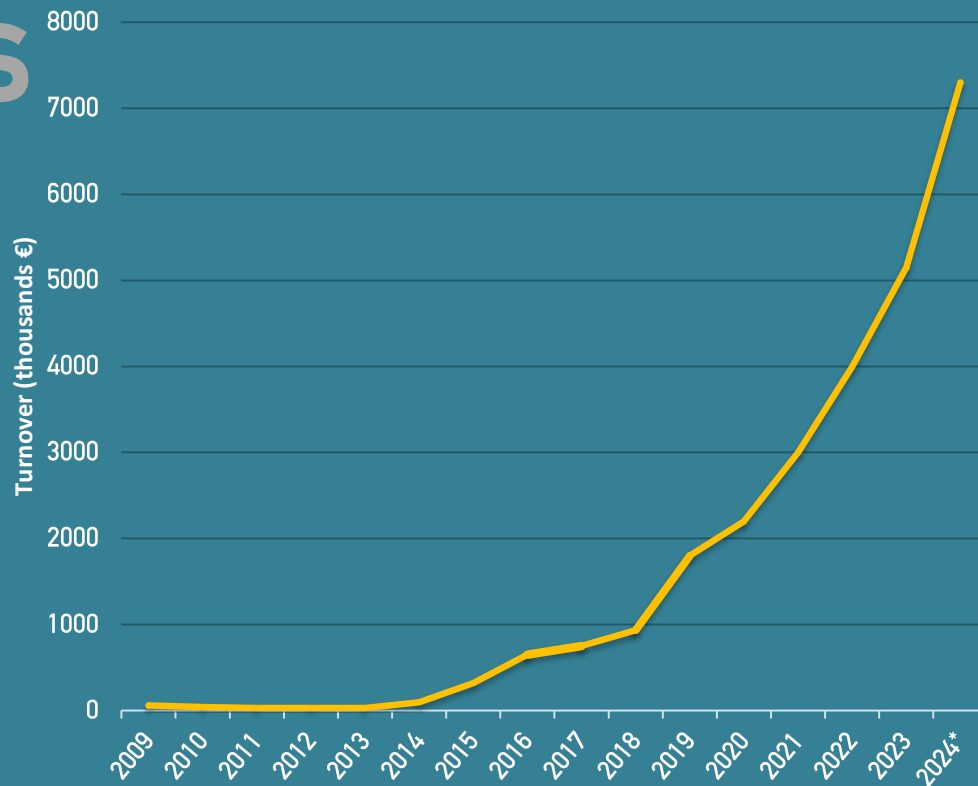


01

# DATA OUR EXPORTS

Escalating  
development of  
exports activity

>20% of total  
annual sales



\*estimation based on current development rate

# REFERENCES



# PLANETARIUM OF CYPRUS

## CYROUS > NICOSIA



# COSTA NAVARINO

## GREECE > PYLOS



# OPAP ARENA

GREECE > ATHENS

ΕΚΚΟΛΩΣΙΣ



# LYTTOS MARE

GREECE > CRETE



# ATTICA SUBWAY

## GREECE > ATHENS/PIRAEUS



# ONE MIRCEA ELIADE

ROMANIA > BUCHAREST





# MARINA AYIA NAPA

## CYPRUS > AYIA NAPA



# EGNATIA HIGHWAY

GREECE > XANTHI



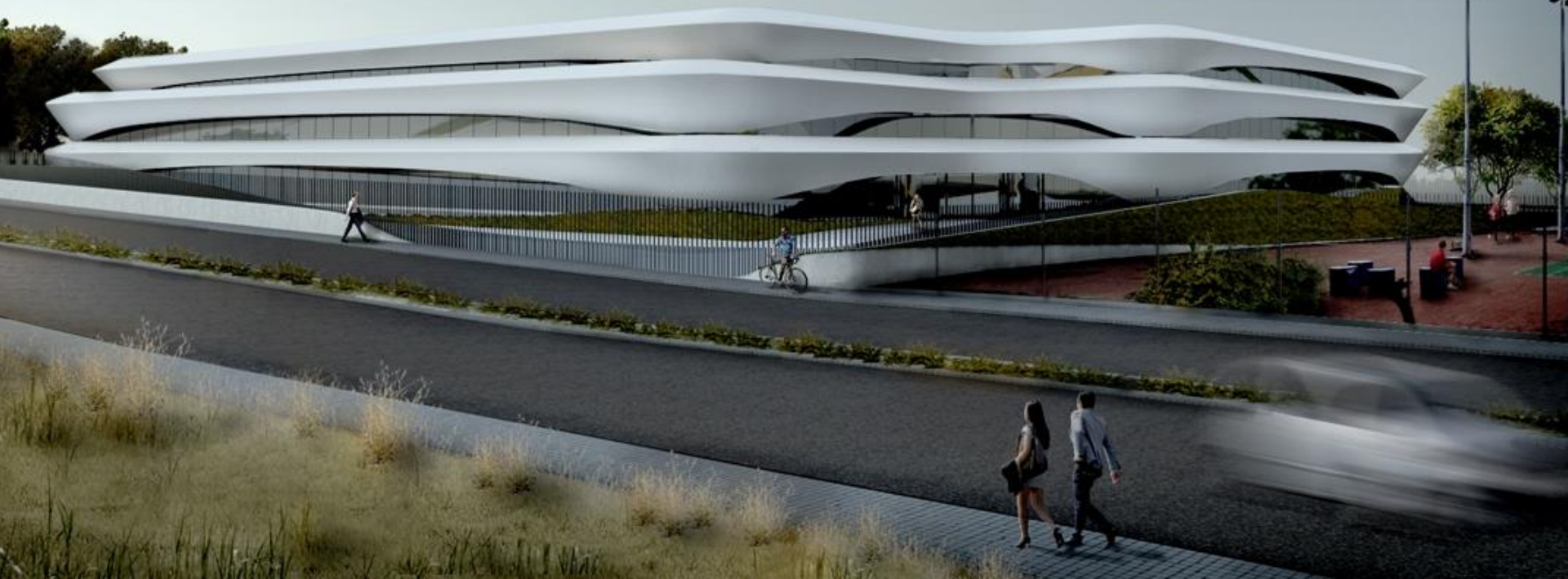
# SIX STUDENT RESIDENCE

## CYORUS > NICOSIA



OTE

GREECE > ATHENS



# **INNOVATION**

## **New technologies in plastic piping systems**





# PLASTICS TECHNOLOGY





**Mechanical strength**



**Low Smoke**



**Antimicrobial technology**



**Low Friction**



**Low Acidity**



**Halogen Free**



**Anti-electromagnetic Technology**



**Color Identity**



**Anti-rodent Protection**

# **PLASTICS TECHNOLOGY**



**UV stability**

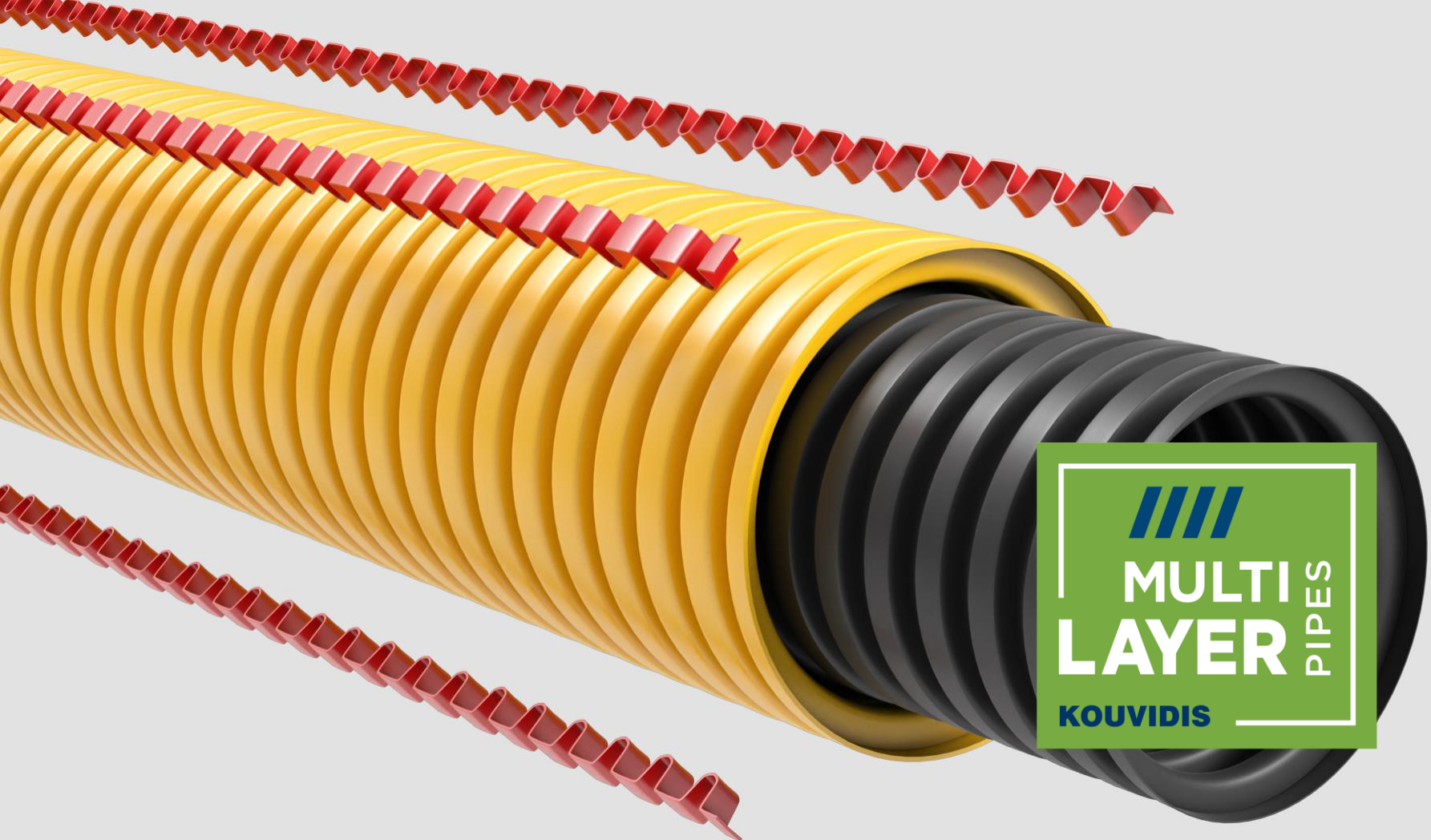


**Antistatic Technology**

**CAN ALL  
THESE  
PROPERTIES  
BE INCORPORATED  
WITHIN ONE  
PIPE?  
HOW?**







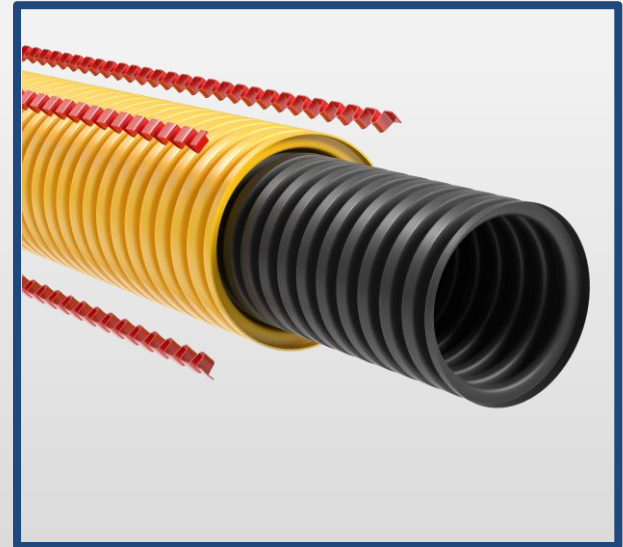
  
**MULTI  
LAYER** PIPES  
KOUVIDIS

# MULTI-LAYER PIPES

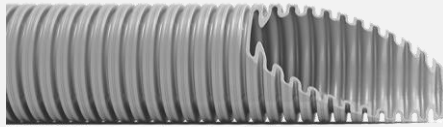
Multi-layer conduits adjust 100% in the contemporary plastic technology, ensure higher mechanical strength, make the installation easier due to their multiple benefits and secure a lower environmental footprint.

KOUVIDIS has penetrated into the multi-layer conduits world since 2012 by developing innovative products for numerous installation fields.

**New generation of plastic  
conduits with friendly  
environmental profile**

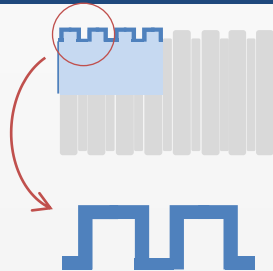


# NEW GENERATION MULTI-LAYERED CONDUITS



## 1 Layer

corrugated

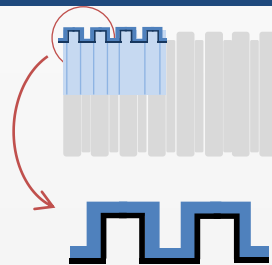


### ONE LAYER

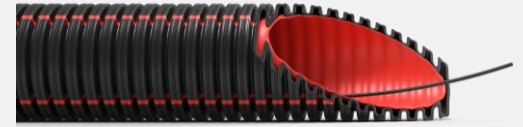


## 3 Layers

corrugated (both internally and externally)

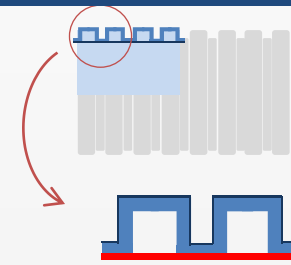


### DOUBLE LAYER



## 3 Layers

Two corrugated and one smooth (internal)



### DOUBLE WALL

02

# MULTI-LAYER CONDUITS KOUVIDIS

11

new product series  
(2012-2024)

~11 mill.€

yearly sales

>9 mill.€

investments

+180%

sales within the last 5 years

>50%

of our sales for exports

50%

of our daily sales

02

# MULTI-LAYER CONDUITS KOUVIDIS

7

NEW production lines

45.000m

are being placed in a daily basis



40.000km

have been installed within the last 5 years\*

*\* the estimation for 2024 is included*

**As is the perimeter of the EARTH**

# DUROFLEX PLUS



Exposed



Underfloor  
in screed



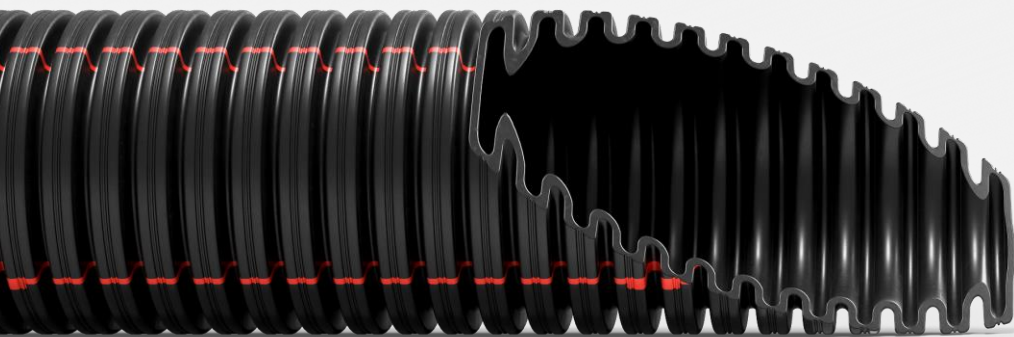
Concrete



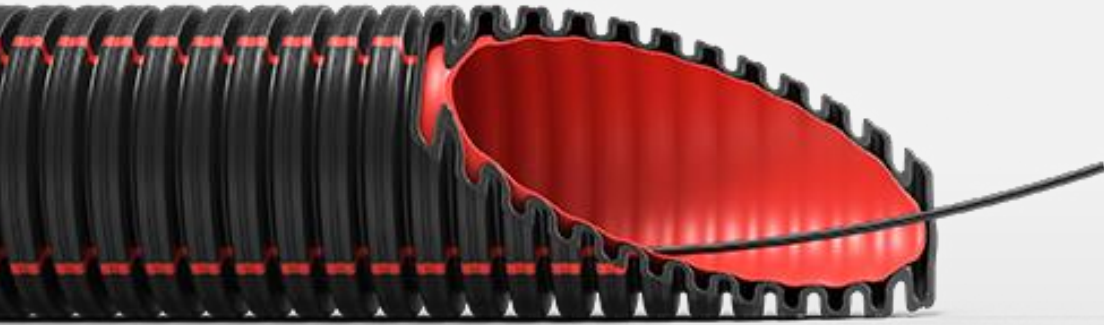
Outdoor



Wood



# THE INNOVATION



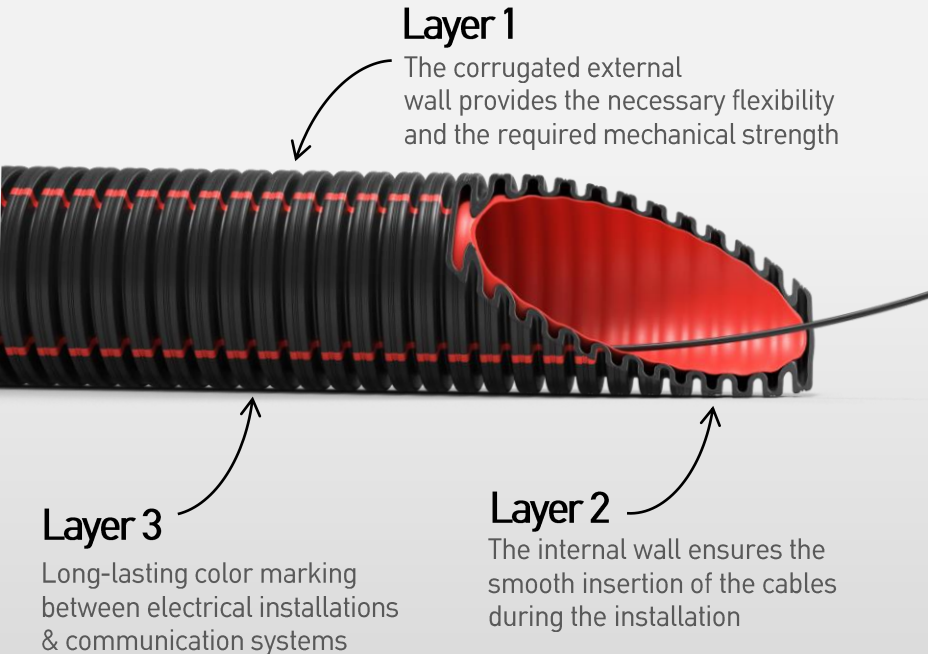
# THE INNOVATION

The CREATION of a conduit that will isolate the benefits of **rigid** conduits (smooth inner surface) and **pliable** conduits (ease at bend).



2.1

# DUROFLEX PLUS (750Nt) / DW DOUBLE WALL CONDUITS

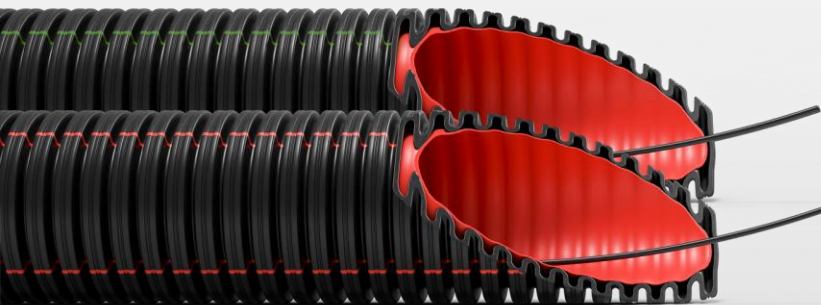


**Ø16 – Ø32**

Applying its manufacturing know-how on structured wall conduits in small diameters, KOUVIDIS becomes **the first company in Europe** daring such an investment.

# 2.1 DUROFLEX PLUS (750Nt) / DW PROPERTIES

Class: 33332



==== Power cables

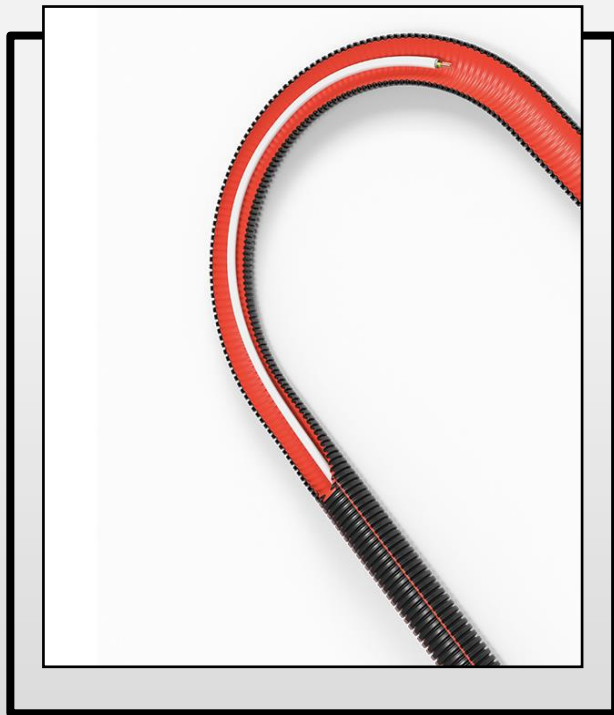
==== Telecommunication  
cables

- **Extra UV stability** makes it ideal for outdoor installations
- Special **ultra slip material** is added in the internal layer, ensuring the smooth insertion of cables
- **Color marking** indicating the power of the protected cables.
- Very good performance over **concrete** chemical substances
- High mechanical resistance in **high temperature of 105°C**
- The internal layer incorporates **animal repellent**
- Made from **halogen free** raw materials based on PO blend
- **Low smoke** emission during combustion
- With **internal cable guide**



2.1

# DUROFLEX PLUS (750Nt) FASTER & EASIER



# NEW GENERATION RIGID CONDUITS

# DUROSOL PLUS



Exposed



Underfloor  
in screed



Concrete



Outdoor



Wood

## 2.2

# DUROSOL PLUS (750Nt)

## 3 LAYER RIGID CONDUITS

Class: 33431

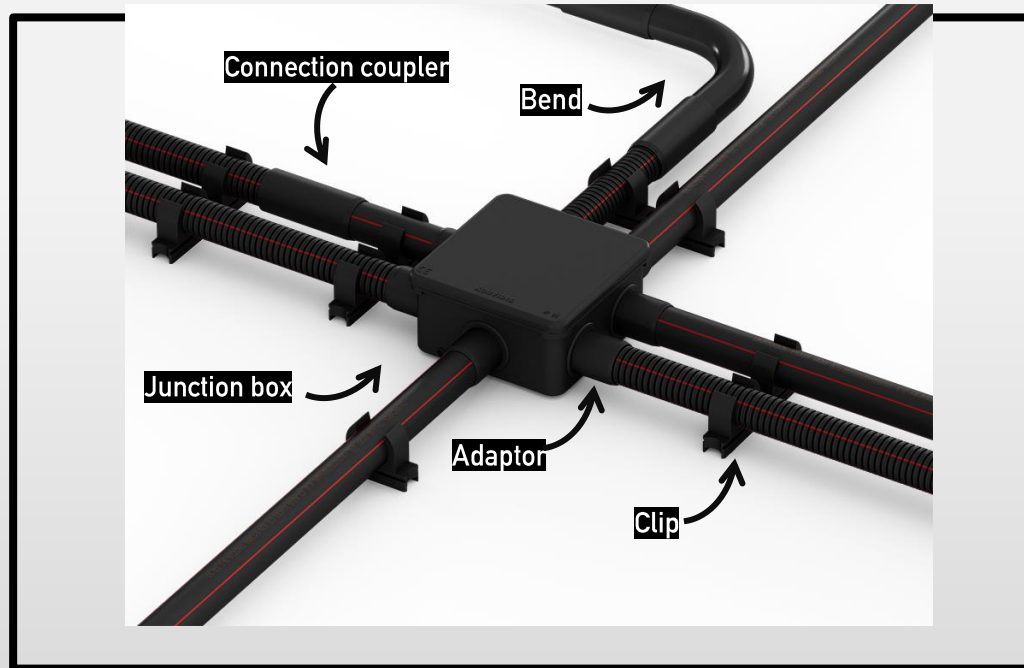


- **Extra UV stability** makes it ideal for outdoor installations
- Special **ultra slip material** is added in the internal layer, ensuring the smooth insertion of cables
- **Color marking** indicating the power of the protected cables.
- Very good performance over **concrete** chemical substances
- High mechanical resistance in **high temperature of 105°C**
- The internal layer incorporates **animal repellent**
- Made from **halogen free** raw materials based on PO blend



2.2

# DUROSOL PLUS & DUROFLEX PLUS CONDUIT SYSTEM Ø16-20-25-32



2.2

# FITTINGS

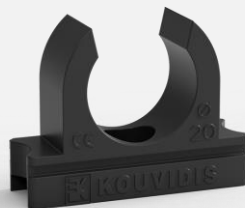
## FOR DUROSOL PLUS – DUROFLEX PLUS



DUROSOL PLUS  
Bend



DUROSOL PLUS  
Connection Coupler



DUROSOL PLUS  
Clip



DUROSOL PLUS  
Adaptor



DUROSOL PLUS  
Junction box  
with seals

# MEDISOL PLUS MEDIFLEX PLUS



Exposed



Underfloor  
in screed



Concrete

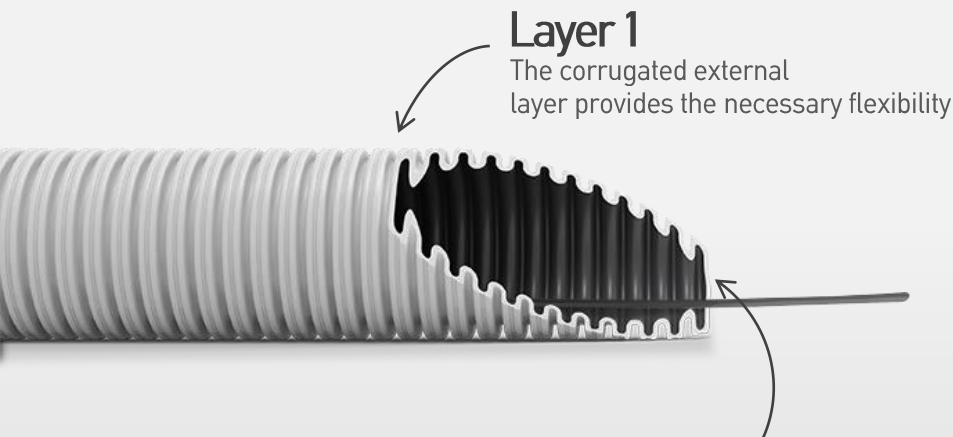




2.3

# MEDIFLEX PLUS (750Nt) / DL

## DOUBLE LAYER CONDUITS



### Layer 1

The corrugated external layer provides the necessary flexibility

Ø16 – Ø32

New generation of double layer conduits with **anti – electromagnetic technology**

Installations in exposed, and concealed type such as concrete

### Layer 2

The internal layer follows the geometry of the outer layer, facilitating the smooth insertion of the cables

## 2.3

# MEDIFLEX PLUS (750Nt) / DL

## PROPERTIES

Class: 33332



- For **exposed indoor** and **concealed** type installations
- Made from **halogen-free** raw materials
- **Low smoke** emission during combustion
- With **anti-electromagnetic** technology
- Special **ultra slip material** is added in the internal layer, ensuring the smooth insertion of cables
- Very good performance over **concrete** chemical substances
- High mechanical resistance in **high temperature of 105oC**
- The internal layer incorporates **animal repellent**
- With **internal cable guide**



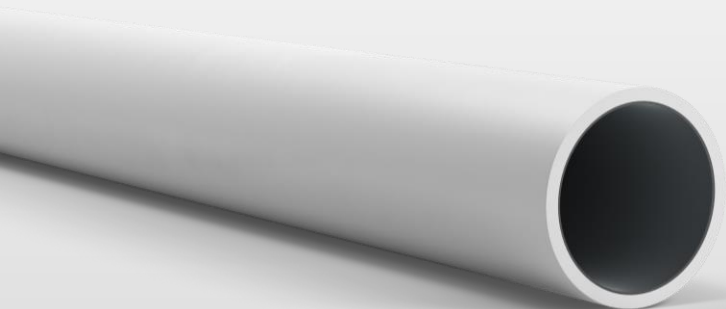
## 2.4

# MEDISOL PLUS (750Nt)

## DOUBLE LAYER RIGID CONDUITS

Class: 33431

Ø16 – Ø32



- For **exposed indoor** and **concealed** type installations
- Made from **halogen-free** raw materials
- With **anti-electromagnetic** technology
- Special **ultra slip material** is added in the internal layer, ensuring the smooth insertion of cables
- Very good performance over **concrete** chemical substances
- High mechanical resistance in **high temperature of 105°C**
- The internal layer incorporates **animal repellent**

2.4

# MEDISOL PLUS & MEDIFLEX PLUS CONDUIT SYSTEM Ø16-20-25-32



2.4

# FITTINGS

## FOR MEDISOL PLUS – MEDIFLEX PLUS

### Accessories



CONDUR HF  
Bend



MEDISOL PLUS  
Coupler



CONDUR  
Clip



CONDUR  
Adaptor

### Junction boxes



CONDUR junction  
box with seals



CONDUR junction  
box with grommets



CONDUR junction box  
with no seals

# SUPERFLEX PLUS



Concealed  
(underplaster)



Concealed  
(dry wall)



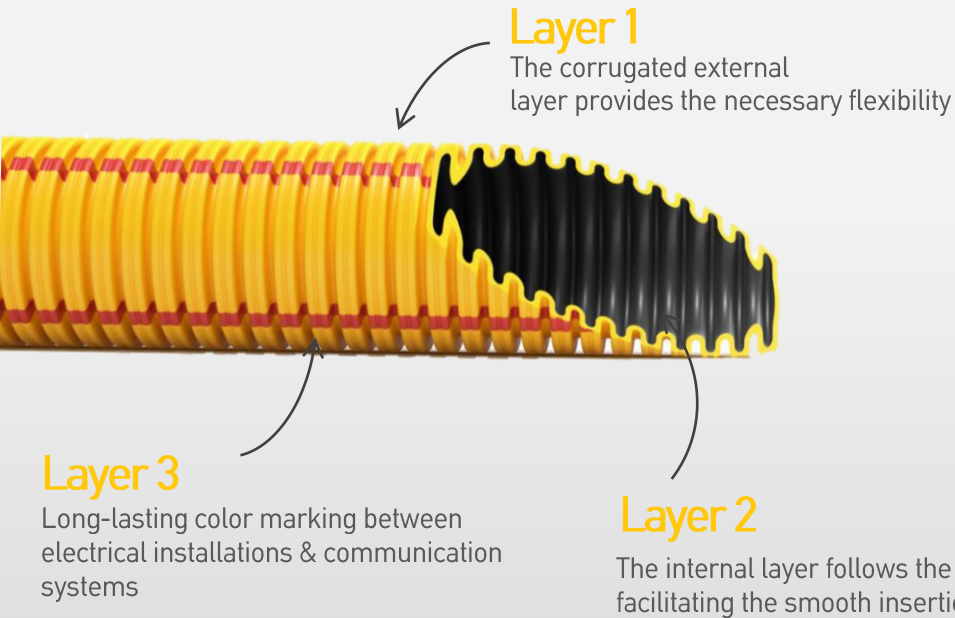
Concealed  
floor / ceiling



2.5

# SUPERFLEX PLUS (320Nt) / DL

## DOUBLE LAYER CONDUIT



Ø16 – Ø32

New generation of three-layer conduits with **anti – electromagnetic technology**

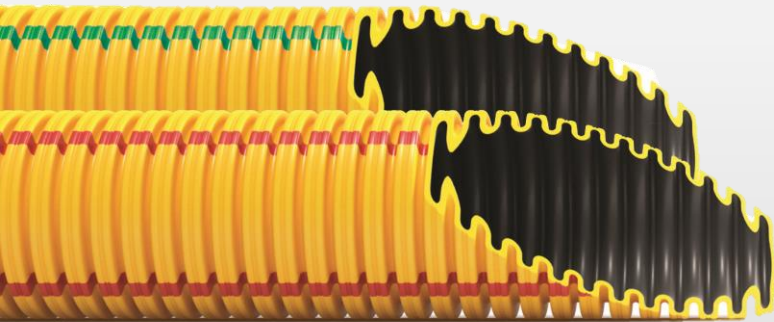
Installations in plasterboard, cavity wall and sub-ceiling

## 2.5

# SUPERFLEX PLUS (320Nt) / DL

## PROPERTIES

Class: 23332



==== Power cables

==== Telecommunication cables

- The inner layer incorporates an innovative anti - electromagnetic technology
- Special ultra slip is added in the internal layer, ensuring the smooth insertion of cables
- Color marking indicating the power of the protected cables.
- High mechanical resistance in high temperature of +105°C
- Made from halogen free raw materials based on PP
- Low smoke emission during combustion





2.5

# SUPERFLEX PLUS (320Nt) / DL

## ANTI-ELECTROMAGNETIC TECHNOLOGY



### Need

All cabling, both in residences and business premises, that is used to transfer energy and provide supply to electric devices, creates so-called low-frequency magnetic fields, as well as electric fields, that remain even after the devices have been inactivated.

### Importance

Thanks to anti-electromagnetic technology, part of the radiation originating from cabling is isolated within the interior layer of SUPERFLEX PLUS conduits, while the interference created between circuits (weak and strong currents) is minimized.

2.5

# SUPERFLEX PLUS (320Nt) / DL

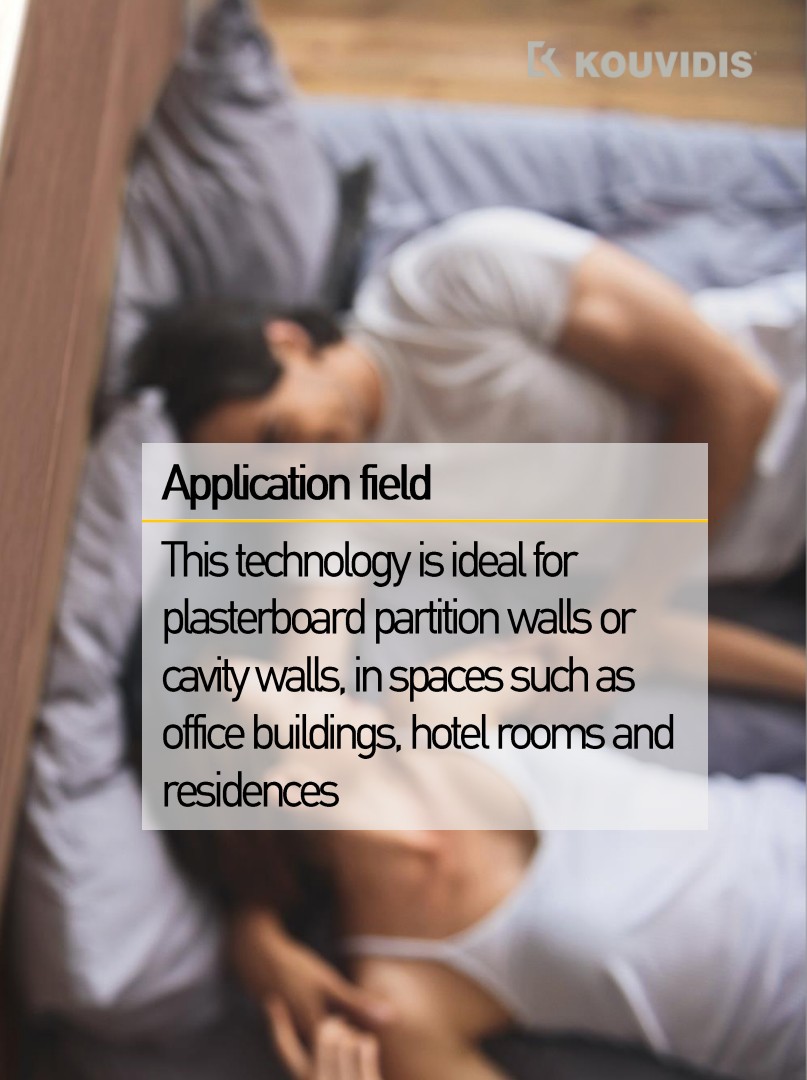
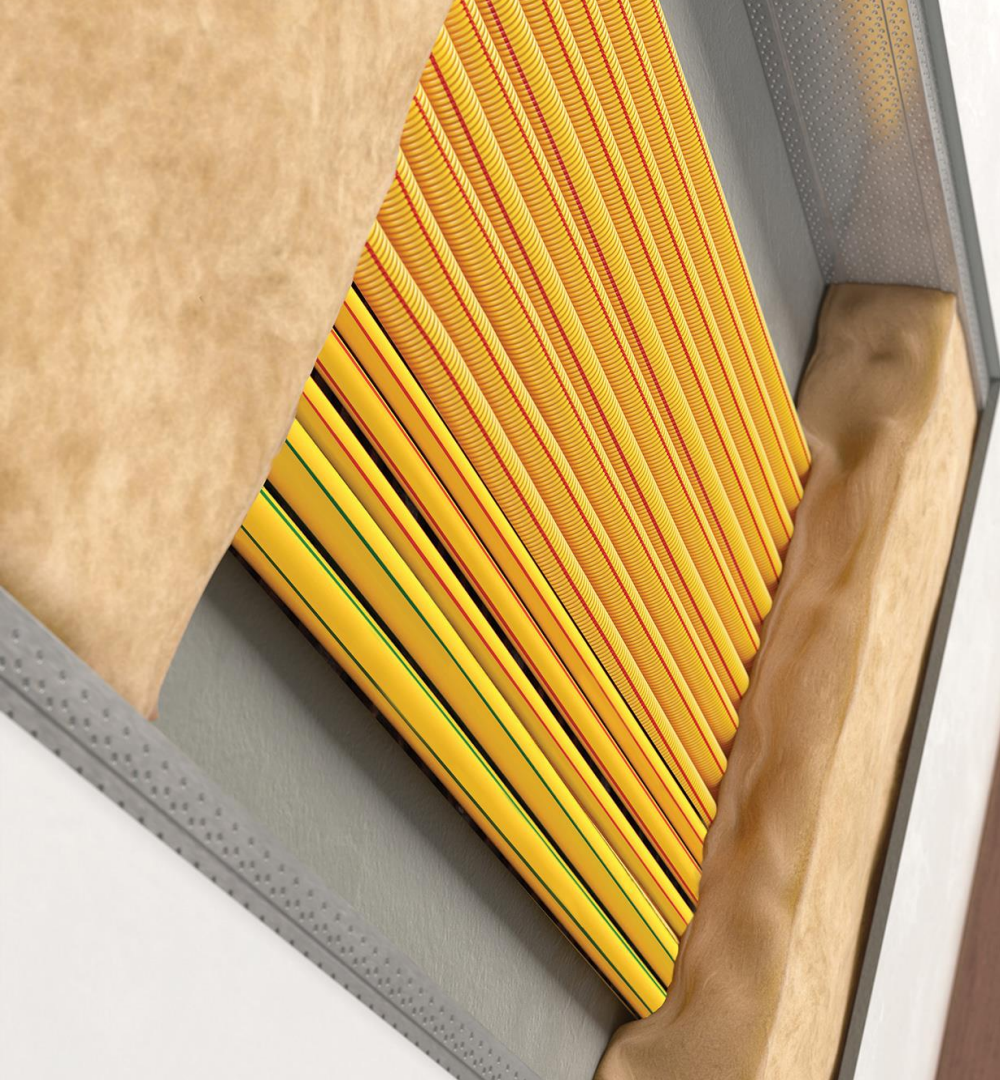
## ANTI-ELECTROMAGNETIC TECHNOLOGY



### How does it work

We developed a ground-breaking polymer of a special composition, where metal elements of low particle size are added to the interior layer of the new plastic conduits, thus shielding part of the electromagnetic radiation generated by the electrical cables.

The interior of the conduit functions as a shield against these fields, while its exterior protects the internal cables, in accordance with the requirements of European standard EN 61386-22.



## Application field

This technology is ideal for plasterboard partition walls or cavity walls, in spaces such as office buildings, hotel rooms and residences

2.5

# SUPERFLEX PLUS (320Nt) / DL FASTER INSTALLATION



40%

LOWER FRICTION  
(IEC/TR62470)



# NEW GENERATION RIGID CONDUITS **SUPERSOL PLUS** FOR UNDERPLASTER



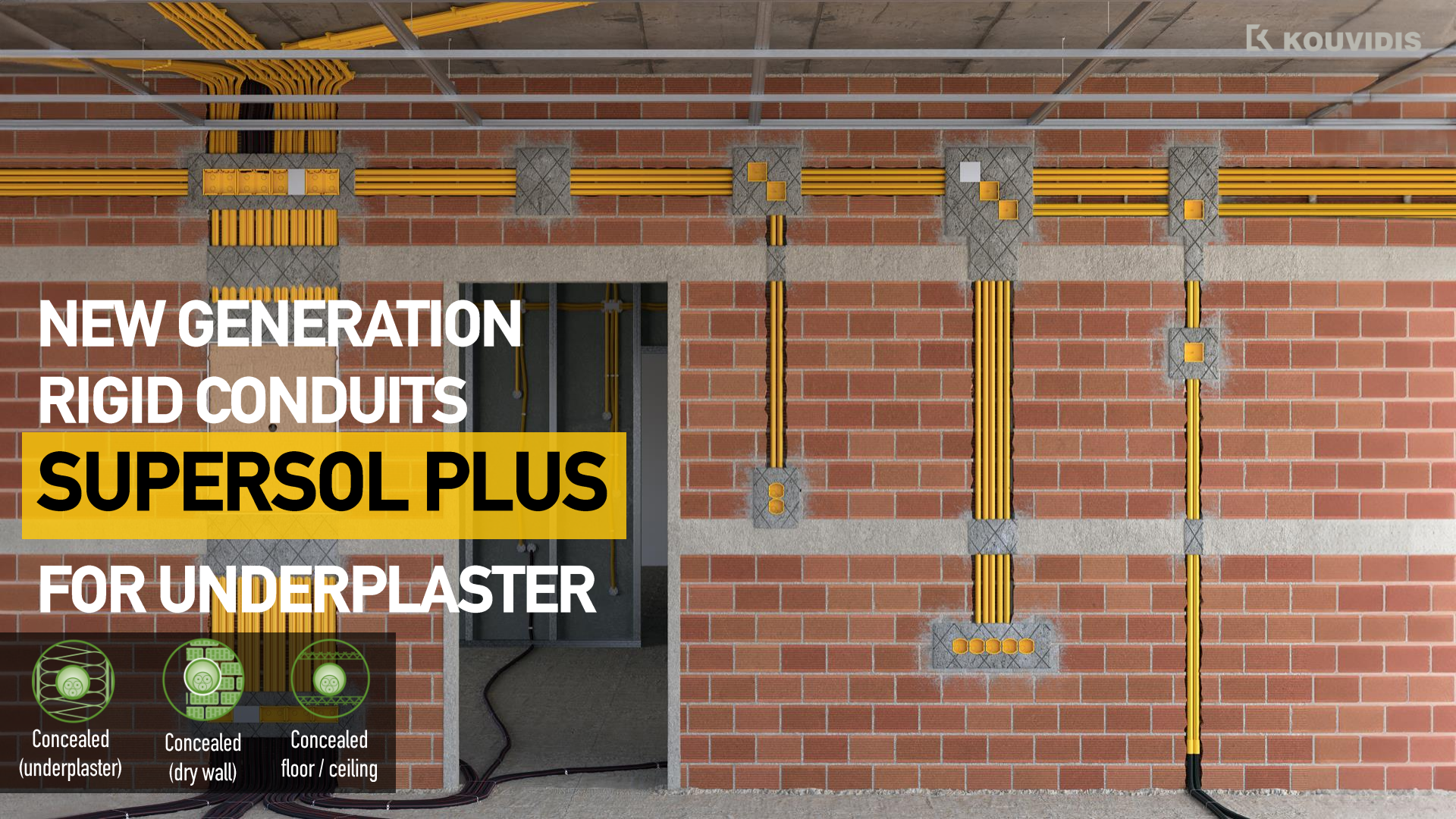
Concealed  
(underplaster)



Concealed  
(dry wall)



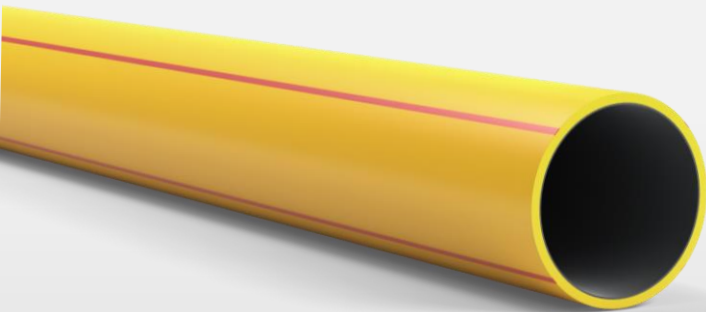
Concealed  
floor / ceiling



2.6

# SUPERSOL PLUS (320Nt)

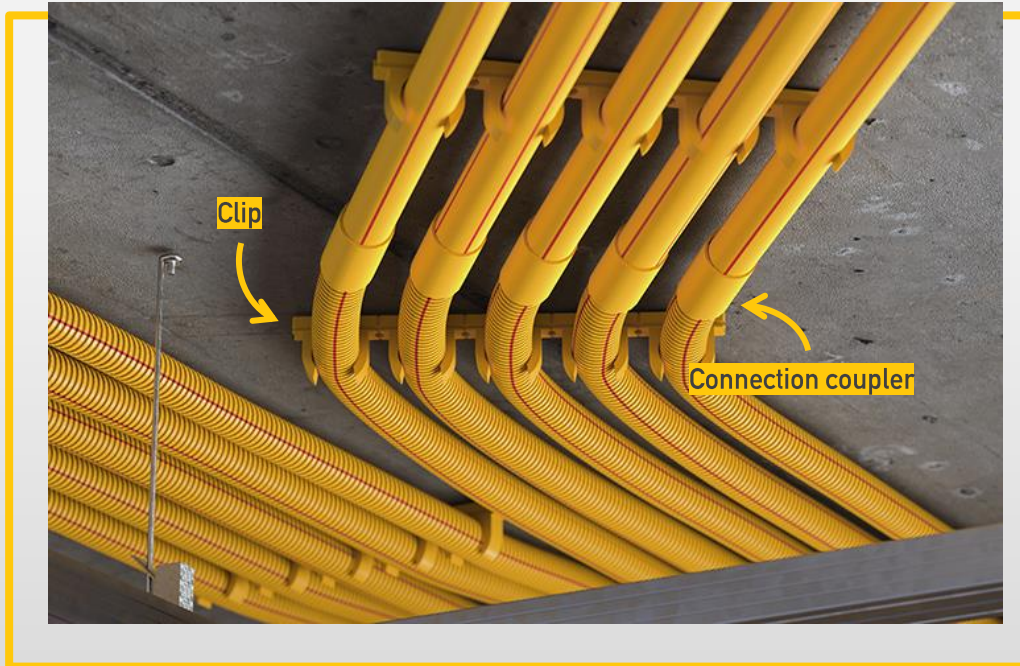
## 3 LAYER RIGID CONDUITS



- The inner layer incorporates an innovative anti-electromagnetic technology
- Special ultra slip is added in the internal layer, ensuring the smooth insertion of cables
- Color marking indicating the power of the protected cables.
- High mechanical resistance in high temperature of +105°C
- Made from halogen-free raw materials
- Low smoke emission during combustion

2.6

# SUPERSOL PLUS & SUPERFLEX PLUS CONDUIT SYSTEM Ø16-20-25-32



2.6

# SUPERSOL PLUS & SUPERFLEX PLUS

## METAL CLAMP for DRYWALL

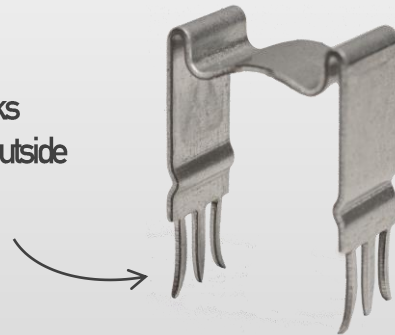
Ø16, Ø20, Ø25, Ø32

New specially designed metallic clamp for **fast, easy and safe conduit impact mounting** in drywalls.

Sendzimir galvanized steel for additional anti-corrosion protection



Specially designed hooks  
without damaging the outside  
of the wall



firm hold without drilling one hit  
and the conduit is solid

Smart design which holds  
perfectly the conduit



Something more.....



# REMEMBER THE FOLLOWING

1. they are cut **VERY EASILY**  
(with the use of the special cutting tool)



2. cable routing is a **DELIGHT**



3. mounting is **EFFORTLESS**

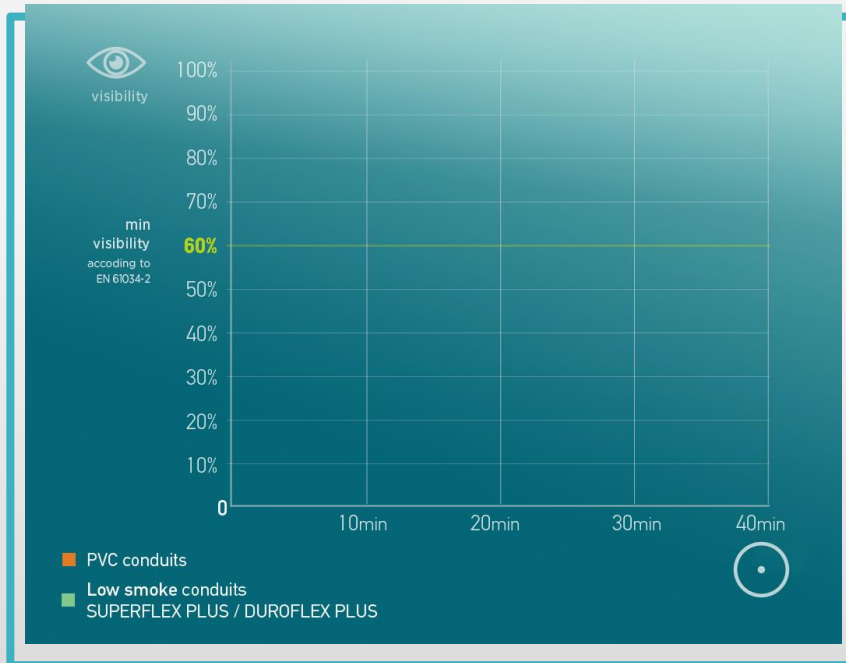


# 3 IMPORTANT POINTS



2.7

# HALOGEN FREE & LOW SMOKE EMISSION



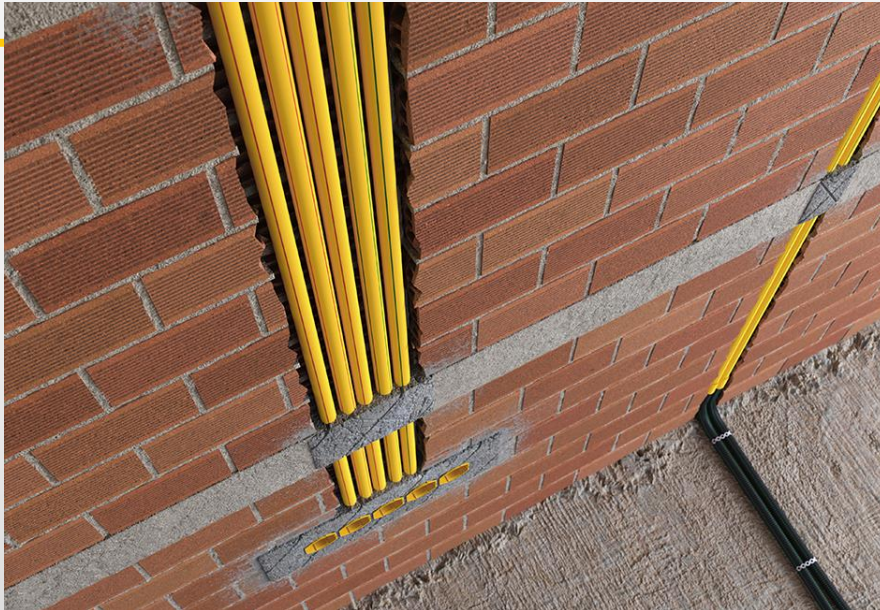
- Compliant with the fire protection regulation 364/2016/EE
- Certified by the German Testing and Certification Institute - VDE
- Production Standards:  
EN 50642  
EN 60754-2  
EN 61034-2



## 2.7

# COLOR MARKING

(NF P 98-332)



- Telecommunication cables
- Power cables

Indelible color marking follows the **NF P 98-332** standard for better identification of the conduits' purpose and contents, increasing safety

2.7

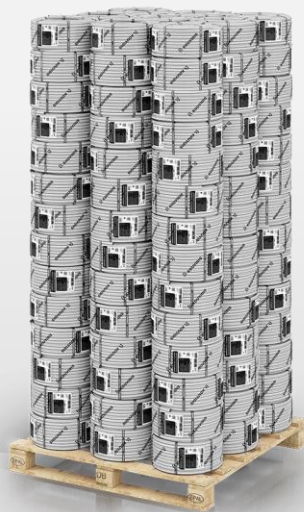
**LESS MASS****MORE METERS**

Specially developed, award-winning packaging that **reduces the volume from 25% to 50%** compared to previous packages.

# 2.7

# SPECIALLY DEVELOPED PACKAGING

2.000m more product per pallet (case Ø20)



**70%**  
reduction of plastic per year  
(15 tons/year)



**45%**  
savings on transport costs



**45%**  
storage space savings

## 2.8

# CUTTING TOOLS FOR PLASTIC PIPES



Cutting tool for plastic pipes  
**in one step**  
REMS ROS PEX28 S

→ up to Ø25



Cutting tool for plastic pipes  
**with automatic quick reverse**  
REMS ROS P35 A

→ up to Ø32



Cutting tool for plastic pipes  
**with quick reverse**  
REMS ROS P63 P

→ up to Ø63





# Plastic piping systems

for buried underground networks



**2012-2022**

Within this 10 year presence, the conduits GEONFLEX® — GEOSUB® have been proved as the most reliable choice for the electrician installer while at the same time they have been used at the biggest projects in Greece and abroad.

2.9

# Conduit system GEONFLEX & GEOSUB Performance Indicators

**1<sup>st</sup>**

Product in sales in Greece  
(2023)

**3**

production lines with 24h  
operation

**+187%**

the last 5 years (Greece)

**20.000<sub>m</sub>**

are being placed on a daily base

2.9

# TIMELINE

- KOUVIDIS becomes the 1<sup>st</sup> purely Greek company that produces double structured wall conduits by launching the 1<sup>st</sup> generation of GEONFLEX conduits
- GEOSUB conduit is launched, the “little brother” of GEONFLEX does more than 1.000.000m of sales
- Longitudinal broad stripes of special indelible color are introduced for the conduits’ identification
- New accessories upgrades are introduced along with one more diameter (Ø32) and a 3<sup>rd</sup> production line.
- Incorporates antistatic technology which protects against static electricity (Patent Protected: 1009810)
- GEONFLEX — GEOSUB received Gold award at Made in Greece Awards for Branded Industrial Product.



2.9

# PLASTIC CONDUIT SYSTEMS BURIED UNDERGROUND

Ø32 – Ø250

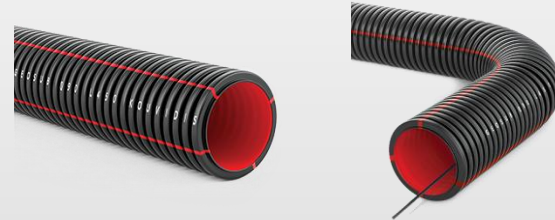
Normal type N750

**GEONFLEX**

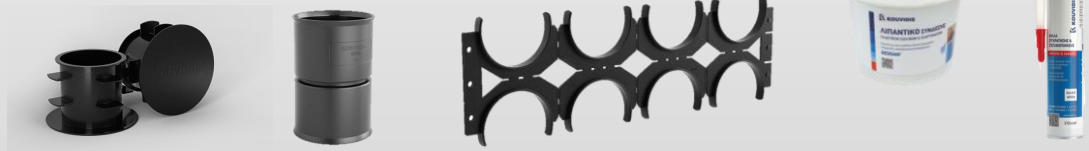


Normal type N450

**GEOSUB**



**ACCESSORIES &  
INSTALLATION MATERIALS**



## 2.9

# GEONFLEX & GEOSUB PROPERTIES



— Power cables

— Telecommunication  
cables

- Wide range of diameters from  $\varnothing 32$  to  $\varnothing 250$
- Special **ultra slip** is added in the internal layer, ensuring the smooth insertion of cables (GEONFLEX)
- **Color marking** indicating the power of the protected cables.
- Not attractive to **rodents** (GEONFLEX)
- Ensure **high ingress protection** (IP40/IP44 with KOUVIDIS connection couplers with hooks/ IP68 with KOUVIDIS adhesive & sealant)
- UV stabilized > 5 years
- Cable guide with minimum tensile strength 650Nt



## 2.9

# GEONFLEX & GEOSUB IDENTIFICATION

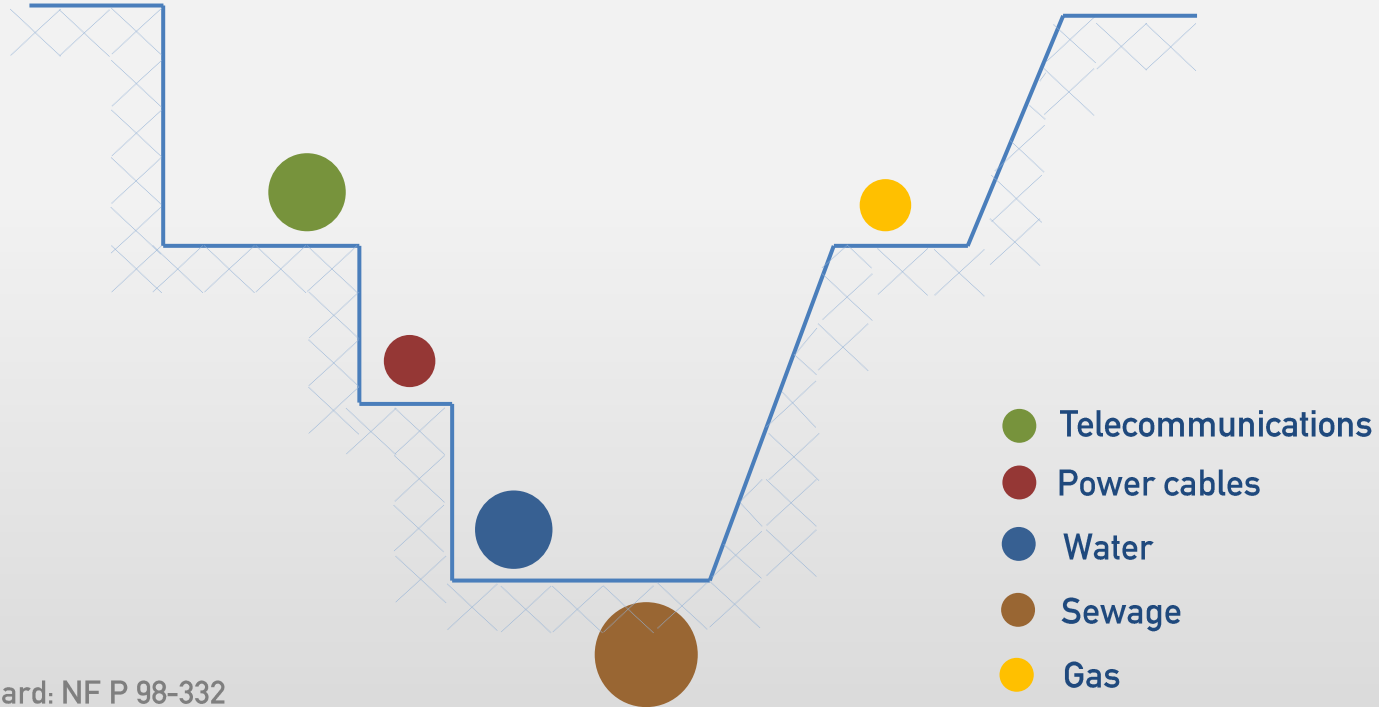


**HINT:** The width of the longitudinal lines is used to easily identify the 2 products.

Longitudinal broad stripes of indelible color are used for GEONFLEX conduits while thin stripes of indelible color are used for GEOSUB conduits.

2.9

# Conduit system GEONFLEX & GEOSUB Color Identification





# **PRODUCT SERIES** for cable management & protection





# Plastic piping systems

Made from PVC

3.1

# PLASTIC CONDUIT SYSTEMS MADE FROM PVC

4441

**CONDUR – CONFLEX (1250Nt)**

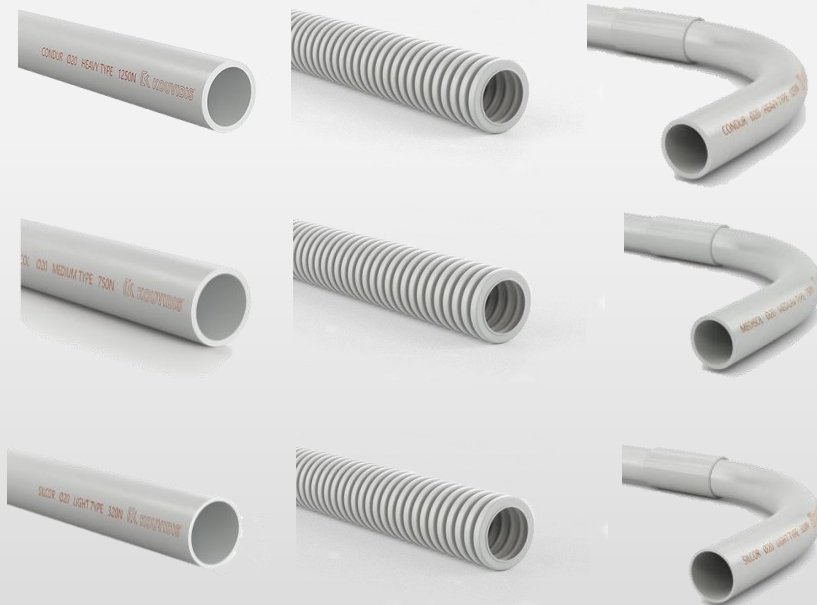
3341

**MEDISOL – MEDIFLEX (750Nt)**

2241

**SILCOR – SIFLEX (320Nt)**

Ø16 – Ø63



3.1

# PLASTIC CONDUIT SYSTEMS FITTINGS

## Accessories



CONDUR  
Coupler



CONDUR  
Clip



CONDUR  
Adaptor

## Junction boxes



CONDUR junction  
box with seals



CONDUR junction  
box with grommets



CONDUR junction box  
with no seals



# Plastic piping systems

Made from halogen free raw materials

3.2

# PLASTIC CONDUIT SYSTEMS HALOGEN FREE

Ø16 – Ø40

4441

## CONDUR HF– CONFLEX HF (1250Nt)



CONDUR  
Coupler



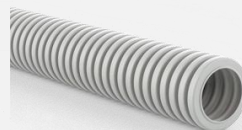
CONDUR  
Clip



CONDUR  
Adaptor



CONDUR junction  
box with seals



CONDUR junction  
box with grommets



CONDUR junction box  
with no seals



Conduit impact strength



## 3.2

# HALOGEN FREE SERIES ADVANTAGES



- In case of a fire accident, they don't release toxic and corrosive gases during combustion, protecting people and environment
- They provide higher protection of building facilities and mechanical equipment due to the absence of corrosive gases during their combustion
- The conduits ensure high impact resistance in extreme low temperature conditions (at  $-45^{\circ}\text{C}$ )
- They contain flame retardants that reduce flame propagating



# Plastic piping systems

With antimicrobial technology



3.3

# PLASTIC CONDUIT SYSTEMS

## ANTIMICROBIAL TECHNOLOGY

3341

### MEDISOL AM – MEDIFLEX AM (750Nt)

Ø16 – Ø63



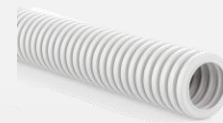
MEDISOL AM  
Coupler



MEDISOL AM  
Clip



MEDISOL  
AM Adaptor



MEDISOL AM  
junction box with  
seals

## 3.3

# ANTIMICROBIAL SERIES ADVANTAGES



- 99% of dangerous microorganisms eliminated within 24 hours - **ISO 22196** (Certified by the British laboratory BIOCOTE)
- Integrated technology that prevents the growth of microbes including mold and fungi
- Reduction of contamination (risk of pathogens transmission) due to cleaner surfaces
- The antimicrobial protection against microbial colonization ultimately extends product's lifetime
- Greater effectiveness against viruses due to the antimicrobial activity of the active ingredients that appear on product's surfaces

**PRODUCT SERIES**  
for sewage & drainage



# Perforated HDPE conduits

Foundation drainage & ground drainage solutions



Drainage of subsoil  
in surrounding areas

Drainage of  
swimming pool floor

Perimeter drainage of  
foundations

Drainage of  
retaining walls

# GEODRAIN PLUS - NEW

4-layer perforated conduit for drainage

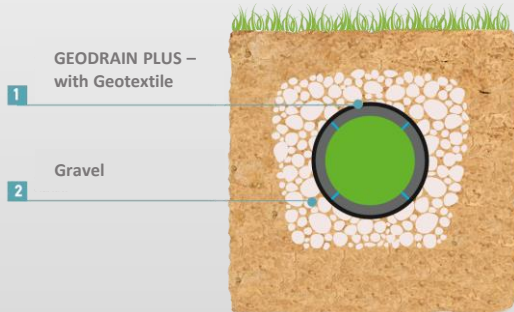
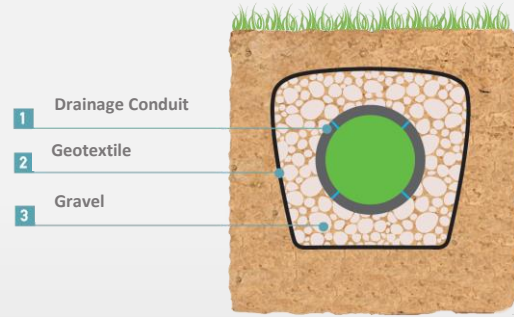
With pre-installed geotextile



## 4.1

# DRAINAGE LAYERS

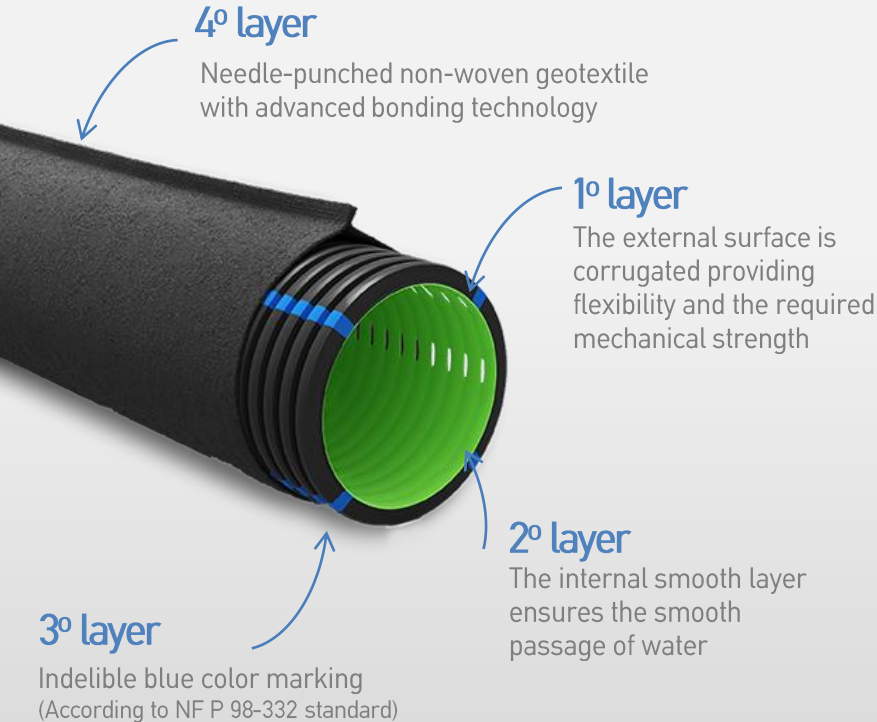
## THE USE OF GEOTEXTILE



- **Up to 50%** fewer man-hours for the installation of the Geotextile
- **Up to 50%** less meters of Geotextile, as it is pre-installed to the drainage conduit

4.1

# GEODRAIN PLUS



## NEW GENERATION CONDUITS 4 LAYER for drainage

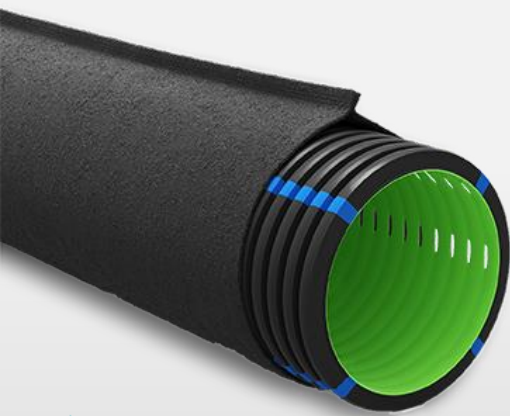
Welding of 3 different walls with the co-extrusion technology while using environmentally friendly raw materials

Use of specially developed geotextile **online** during the production process

## 4.1

# GEODRAIN PLUS PROPERTIES

OD63 – OD200



- Made by specially stabilized HDPE raw material
- SN4 | SN8 Ring Stiffness according to EN ISO 9969
- Symmetrically perforated according to DIN 4262 standard
- UV resistance up to 5 years
- Chemical resistance according to DIN ISO 10358
- Halogen-free & heavy metals free (RoHS)

220°

6m bars – local perforation 220°

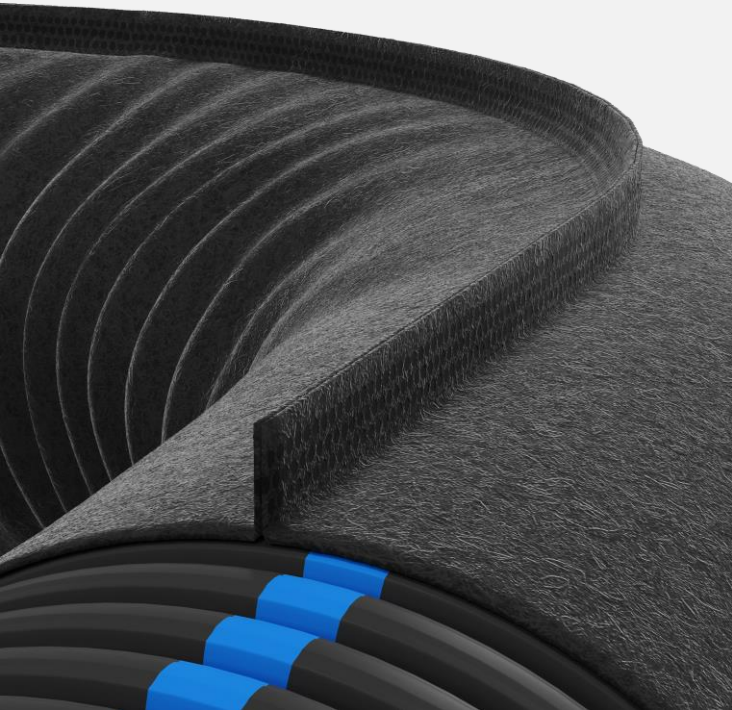
360°

Coils 50m/25m – total perforation 360°



## 4.1

# GEOTEXTILE PROPERTIES

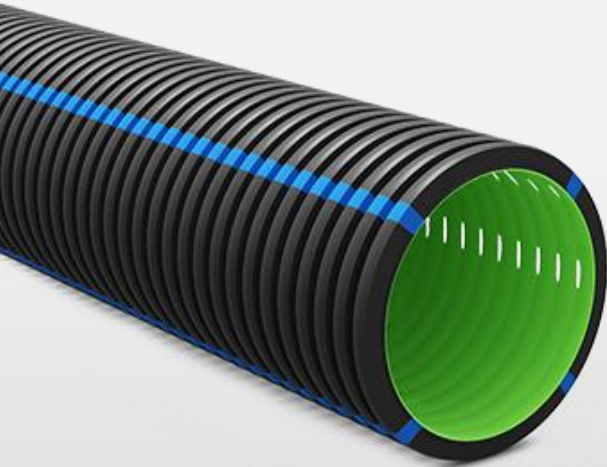


- 150gr/m<sup>2</sup> special Geotextile needle-punched & non-woven
- Advanced sealing technology for stable and even distribution of the geotextile  
**PATENT PROTECTED (No. 1008995)**
- Developed to meet the needs for the majority of soils
- UV Resistance up to 5 years
- Accompanied by Declaration of Performance and bears the CE marking

## 4.1

# GEODRAIN PROPERTIES

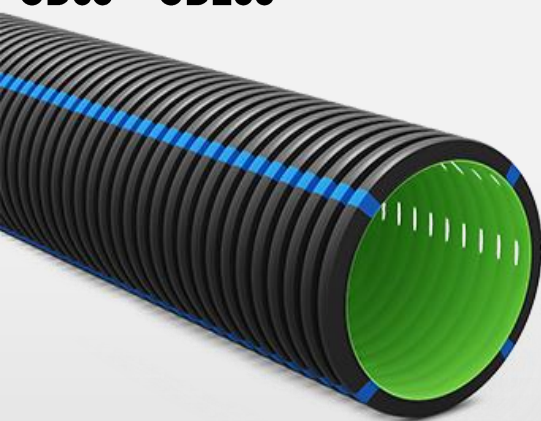
OD63 – OD200



- Available also without the Geotextile
- There are some rare types of soil where the filter zones need to differ:  
Soils with no coherence such as yellow calcareous mud or dispersed clays. Those soils are “internally unstable” and contain particles that may easily pass through the filter zones from gravel and geotextile.

## 4.1

# GEODRAIN PROPERTIES

**OD63 – OD200**

220°

**6m bars – local perforation 220°**

360°

**Coils 50m/25m – total perforation 360°**

- **SN4 | SN8** Ring Stiffness according to EN ISO 9969
- Perforation of **220°/360°** perforation carried out by advanced machinery along its entire length
- It has **corrosion resistance**
- Exceptional **resistance to solar radiation** thanks to the aging stabilizers incorporated in the raw material of its outer wall
- Its **engraved marking** is a guide for the right laying of pipes on the trench
- Its **much lower weight** facilitates its loading, transport and storage

4.1

# ACCESORIES & INSTALLATION MATERIALS

End Caps



Connection Coupler  
with hooks



Adhesive & Sealant



**KEEP IN MIND**



## 4.2

# UNDERGROUND COLOR MARKING

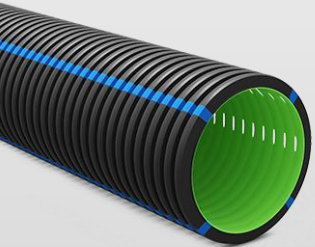
(NF P 98-332)



Red – Power Cables



Green - Telecommunication

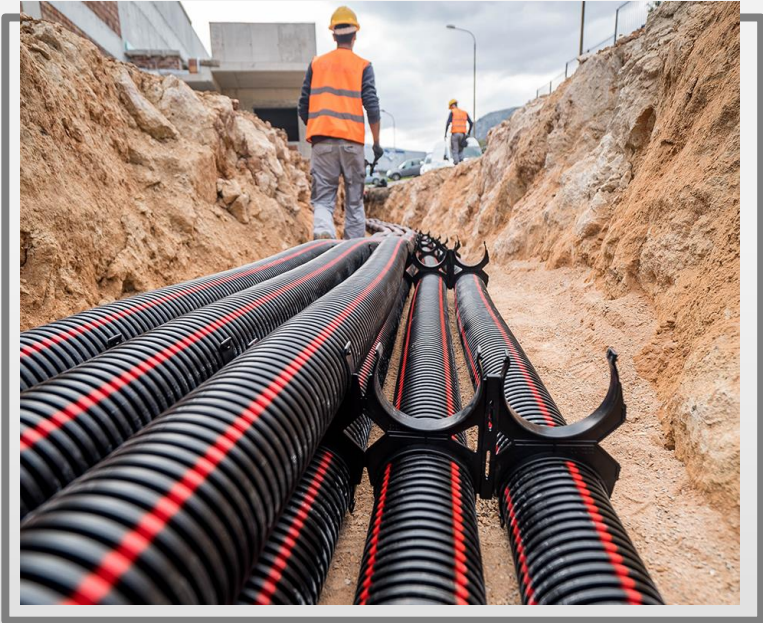


Blue - Water

Indelible color marking follows the **NF P 98-332** standard for better identification of the conduits' purpose and contents, increasing safety

## 4.2

# COLOR MARKING PURPOSE



## INCREASE SAFETY

At a construction or reconstruction of any given structure, employees on the construction site can easily identify what is inside the conduits by facing the exterior color marking.

# Double wall HDPE conduits

Waste water sewage and stormwater drainage solutions





# 4.3

# SEWAGE SYSTEMS MATERIALS EVOLUTION



CLAY – ANCIENT TIMES



CEMENT – 1900



PVC – 1930



HDPE – TODAY

## 4.3

# GEOSAN PROPERTIES

OD160 – OD630



- Made of **High-Density Polypropylene (HDPE)**
- Certified according to **EN 13476-3** by Bureau Veritas
- **SN4 | SN8** Ring Stiffness according to EN ISO 9969
- **Ring flexibility RF30** according to EN ISO 13968
- **Exceptional impact strength** according to EN 744 (TIR≤10%)



BUREAU  
VERITAS

## 4.3

# GEOSAN PROPERTIES

OD160 – OD630



- Exceptional **resistance to solar radiation** thanks to the aging stabilizers incorporated in the raw material of its outer wall
- **Excellent abrasion behavior** thus preventing the depositing of dirty materials (fat, salts, etc.) in their smooth internal wall
- Its **much lower weight** facilitates its loading, transport and storage
- The special sealing elastomeric rings, in combination with the geometry of the external wall of GEOSAN pipes, fulfill EN 1277 by ensuring **permanent leak-tightness**



BUREAU  
VERITAS

4.3

# GEOSAN CONNECTION METHODS



With the use of an integrated molded socket



With the use of a separate coupler

4.3

# GEOSAN ACCESORIES



CONNECTION  
COUPLER



REPAIR COUPLER



BRANCH 45°



LATERAL CONNECTOR  
(SADDLE)



BENDS 45°



BENDS 90°



BRANCH 45°



TEE BRANCH 90°

4.3

# GEOSAN ACCESORIES



MALE END CAPS



FEMALE END CAPS



ELASTOMERIC SEALING  
RING



ELASTOMERIC SEALING  
RING FOR FEMALE END



DRILLING CROWN



ADHESIVE & SEALANT



LUBRICANT

4.3

# INSTALLATION COMPONENTS

## CONNECTION LUBRICANT



NECESSARY FOR THE SAFE AND FAST CONNECTION OF PLASTIC CONDUITS WITH ELASTOMERIC SEALING RINGS ACCESSORIES IN SEWAGE OR DRAINAGE.



- Water Resistance
- In paste form
- When used in the right quantities just before installation, it does not alter the shape of the elastomeric sealing ring, protecting from potential leakage.

## 4.3

# GEOSAN CONDUITS ADVANTAGES



- They are **50% lighter** than the conduits made from PVC while they are weighting only **5%** of the cement conduits
- They succeed a **40% material cost reduction** compared to PVC or Cement
- They can **last longer** due to their flexibility and their ability to return to their initial form
- They are **100% environmentally friendly** as they are **Halogen Free, fully recyclable** with a very low environmental footprint



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forever safe