SUPERFLEX® PLUS

320Nt

3 layers conduit

FOR CONCEALED
TYPE INSTALLATIONS
IN PLASTERBOARD

KOUVIDIS®
forever safe

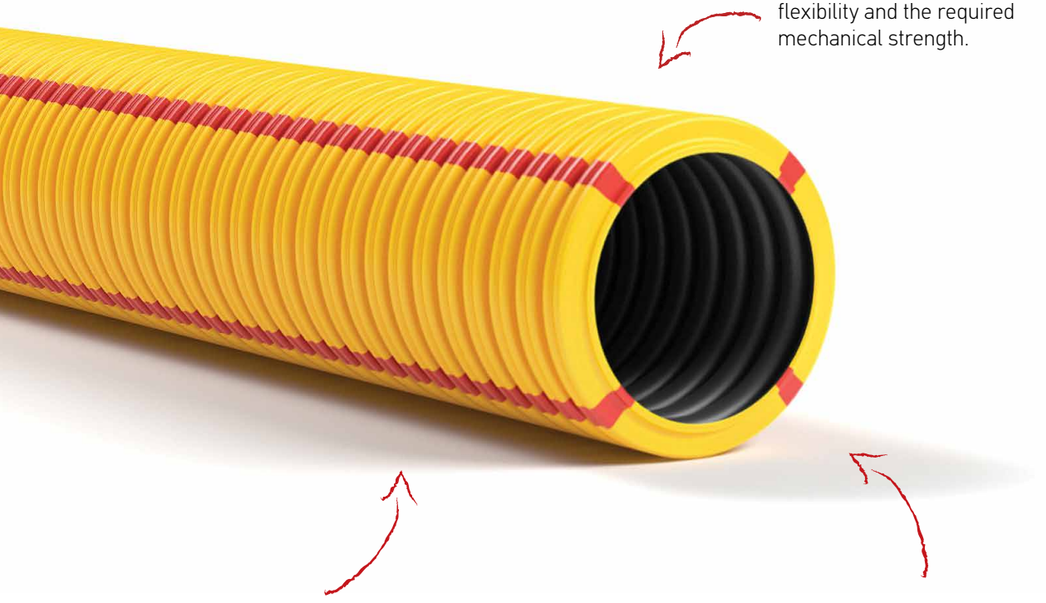
Bronze Award • Innovative Industrial product • BPABEIA MADE IN GREECE 2022

AWARDS'21 Packaging Technology Breakthrough • Sustainability • Marketing Silver

AWARDS'21 Packaging Technology Breakthrough • Sustainability • Marketing Bronze

Layer 1

The corrugated external wall provides the necessary flexibility and the required mechanical strength.



Layer 3

The third independent layer of longitudinal lines, of indelible color, creates a long lasting color marking between electrical installations and communication systems.

Layer 2

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

KOUVIDIS is the first Greek company to embed anti-electromagnetic technology in conduits for cable protection. This pioneering development was awarded by the Greek Marketing Academy with the "Innovative Industrial Product" Bronze Award.

Patent Protected Anti-electromagnetic technology (1009975), Anti-rodent protection (EP2698792), Anti-static technology (1009810), Color Marking (1009158).

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SUPERFLEX® PLUS 320Nt

New generation of 3layers conduits

for concealed type installations
in plasterboard
with ANTI-ELECTROMAGNETIC technology

Faster and easier cable insertion

Halogen Free

Anti - electromagnetic technology

Low smoke emissions

at a glance...

The new **SUPERFLEX® PLUS** pipes are the evolution of the very successful pipes SUPERFLEX® first produced by KOUVIDIS in 1979.

Following the method of co-extrusion of 3 layers along with the use of special stabilized and halogen free raw materials, SUPERFLEX® PLUS conduits achieve high mechanical strength and flexibility, for concealed type installations in plasterboard, cavity wall and sub-ceiling.

KOUVIDIS is the first Greek company to enter the field of production of plastic conduits using anti - electromagnetic technology.

The inner layer incorporates an innovative technology, which absorbs a part of the electromagnetic radiation emitted by the cables running within the conduit.

SUPERFLEX® PLUS 320Nt
new anti-electromagnetic technology

Patent Protected: 1009975

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

These fields depend on the voltage and intensity of the electric current and become weaker as the distance from their source increases. However, they are considerable at distances up to one metre.

In particular, the field created when we come into contact with a device or when we are standing next to a plasterboard wall with electrical cabling behind it can be very strong.

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

How does it work?

During the production process phase, the **anti-electromagnetic technology** is incorporated into the raw material of SUPERFLEX® PLUS conduits, preventing part of the electromagnetic radiation from entering the building.

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.

Moreover, the metal content of the interior layer does not prevent the normal recyclability of the product, ensuring its very low environmental footprint.

Application field

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

less volume | more metres | reduced footprint

new packaging for SUPERFLEX® PLUS conduits

AWARDS'21 Packaging Bronze

AWARDS'21 Packaging Silver

Less volume

The packaging of the new SUPERFLEX® PLUS conduits is designed in a way that reduces its volume **by 25% to 50%** compared to conventional packaging, offering multiple benefits regarding storage.

More metres

Knowing what are the practical needs when it comes to plasterboard concealed installations, we offer the SUPERFLEX® PLUS Ø20 conduit in 100-metre packages to better serve the needs of the electrical installer.

Reduced footprint

Our new generation of packaging includes the recyclable protective film we use in every conduit packaging, but in much smaller quantities, in an effort to continuously reduce our environmental footprint.

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SUPERFLEX® PLUS

the ideal solution
in plasterboard

Faster installation

A special slip material is added in the internal layer of SUPERFLEX® PLUS conduits, **reducing by 40%** the friction (test conducted according to IEC/TR 62470) and thus the applied force that is required for cable routing.

Less “exposure”

The new SUPERFLEX® PLUS conduits incorporate a new anti-electromagnetic technology that shields off part of the electromagnetic radiation of the contained cables, preventing it from reaching the interior of the building.

Safer installation

SUPERFLEX® PLUS conduits adapt the requirements of the 364/2016/EU Regulation for the fire protection in buildings. They are made from 100% halogen free raw materials in order to protect people and their property in case of a fire.

KOUVIDIS

main advantages of SUPERFLEX® PLUS conduits

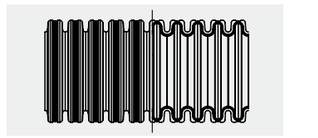
- The inner layer incorporates an innovative anti-electromagnetic technology
- **40%** lower friction due to special slip material added in the internal layer (test conducted according to IEC/TR 62470)
- Longitudinal stripes of indelible color distinguish the cables that are in the conduits. Red = Power cables | Green = Telecommunication cables
- Made from halogen free and heavy metals free (RoHS) raw materials
- High mechanical resistance in high temperature up to 105^{0}C
- Low smoke emissions (EN 61034-2) and low toxicity of the gases produced by combustion (EN 60754-2)
- Very easy to use due to its ability to revert to its initial form after bending
- Ideal for concealed type installations in plasterboard and cavity walls
- New specially designed packaging that saves up to **50%** more storage space
- Testing certification in accordance with the European production standards EN 60754-2, EN 50642 , EN 61034-2 by the German laboratory VDE.

Light Type (320Nt)

RAL 1023
yellow / outer layer

RAL 9004
black / inner layer

RAL 3020
Indelible red / Longitudinal lines



Application Standards: EN 61386.22, EN 50642, EN61034-2, 3N 60754-2

Reference Standards: NF P-98332

European Directives: 2014/35/EU (LVD), 2011/65/EU (RoHS)

SUPERFLEX® PLUS conduits are also available with green **color** marking

Patent Protected: EP 2698792, 1009975, 1009810, 1009158

SUPERFLEX® PLUS IAS

23332

Properties		Class
Resistance to compression	320Nt/5cm	2
Resistance to impact	2J (at-15°C)	3
Lower temperature range	-15°C	3
Upper temperature range	+105°C	3
Resistance to bending	Pliable	2
Electrical characteristics	With electrical insulated characteristics	2
Protection against ingress of solid objects Protection against ingress of water	min IP65	6 5
Resistance against corrosion	Not applicable	0
Tensile strength	None declared	0
Resistance to flame propagating	Non flame propagating	1
Suspended load capacity	None declared	0

Additional properties

Raw material	Halogen free, heavy metals free (RoHS) and specially stabilized thermoplastic PP
Anti – electromagnetic technology	Absorbs a part of the electromagnetic radiation emitted by the cables
Lower frictions	Special slip material added in the internal layer
Color marking	Longitudinal stripes of indelible color indicate the power of the protected cables
Halogen free	No toxic or corrosive gases in case of fire
Rodent repellent	Not attractive to rodents
Antistatic technology	Protection against static electricity

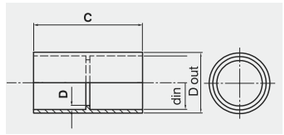
+ Three layer conduit consists of a corrugated external wall, an internal layer that follows the geometry of the outer wall and a third independent layer of longitudinal lines. Marked using embossed printing and packed with 100% recyclable polyethylene film including safety straps.

Ideal for concealed type installations in plasterboard, cavity wall and sub-ceiling. A special slip material is added on its internal layer, facilitating the smooth insertion of the cables.

Type	Part number for electrical installations / telecommunications	D out	din		kg	(m)
Ø16	2010016 / 2017016	16	10.9	50	2.34	5850
Ø20	2010020 / 2017020	20	14.2	100	5.60	5200
Ø25	2010025 / 2017025	25	18.8	50	3.59	2200
Ø32	2010032 / 2017032	32	24.9	25	2.31	1100

Fittings

RAL 7035
light grey



Application Standards: EN 61386.01

Reference Standards: EN 50642, EN 61034-2, EN 60754-2

Coupler for SUPERFLEX® PLUS and DUROFLEX® PLUS conduits

Properties

Raw material	Halogen free, heavy metals free (RoHS) and specially stabilized thermoplastic HDPE

Type	Part number	D out	din	C mm		
Ø16	4017016	17.7	16.0	52.3	40	1920
Ø20	4017020	23.5	20.0	51.5	30	1890
Ø25	4017025	28.5	25.0	51.5	30	1440
Ø32	4017032	37.0	32.0	65.0	20	560

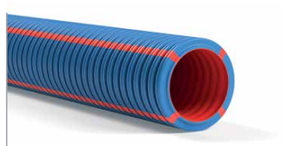
General properties for Fittings

Temperature range	-25°C to +60°C
Electrical characteristics	With electrical insulated characteristics
Resistance to flame propagating	Non flame propagating
Halogen free	No toxic or corrosive gases in case of fire

multi-layer conduits

Multi-layer conduits are fully adapted to the new technology of plastics, ensure greater mechanical strength, facilitate installation due to their multiple benefits and guarantee an improved environmental footprint. KOUVIDIS has been active in the multi-layer conduit market since 2012, having developed innovative products for various applications.

We use two different technologies for welding the individual layers:

	 DUROFLEX® PLUS IAS	 SUPERFLEX® PLUS IAS
Production technology	Double Structured Wall (DW)	Double Layer (DL)
Layer 1	Corrugated external wall	
Layer 2	Smooth internal wall	Corrugated internal layer following the geometry of the outer wall
Layer 3	An independent layer of longitudinal lines	
Application field	Concrete	Plasterboard, cavity wall, Sub-ceiling
Drawing		

For more technical information please advice the Product Data Sheets at www.kouvidis.gr

ATTENTION

Cable protection conduits are an essential part of the electrical infrastructure of a building.

Unfortunately, even today, there are many cases where cables are directly installed within cavity walls (drywall) even if most of the Member's national legislation, in Europe, impose the mandatory use of protective cable conduits in electrical installations. From our point of view, as manufacturers, we recommend avoiding installing cables directly within walls, an action that may endanger the safety of the building or the people living in it.

Our plastic conduits offer higher thermoplastic insulation, better mechanical resistance, fire protection, less risk during installation and finally the best way to protect cables. Additionally, they prove their true value years later, when building owners proceed to new modern applications. Therefore, a well-planned electrical conduit installation gives the builder the security to use new technologies any time with very little installation effort, something that is impossible to do when cables are directly installed in walls.

LEGEND

Nominal outer diameter


Packing (pieces/box)

Dimensions (mm)

Nominal inner diameter (min)

Coil weight (Kg)


Bigger Packing for fittings (pieces)


Packing (m/coil)

Coils of pliable conduits on pallet (m)

Halogen free product

Faster and easier cable insertion

Low smoke emissions

Conduits with anti - electromagnetic technology

The product and its production process are inspected and approved by VDE German institute

The product does not contain hazardous substances acc. to 2011/65/EE RoHS Directive. Certification body VDE

Compliance with REACH Regulation EC/1907/2006 about chemicals

Certification body of Quality Management System EN ISO 9001

Certification body of Environmental Management System EN ISO 14001

Certification body of Occupational Health and Safety Management System ISO 45001

ver. 07.2022

MANUFACTURING EXCELLENCE AWARDS 2021
Τα βραβεία της Ελληνικής Βιομηχανίας

WINNER

ISO 9001 ISO 14001 ISO 45001 VDE RoHS compliant ID 201572 REACH Compliant

KOUVIDIS was founded in 1979 when Emmanuel Kouvidis, an electrician-installer, decided to quit his job and set up a business of his own in order to produce high quality conduits which would not break and which would ensure the safety of electricians-installers.

His vision came true and KOUVIDIS evolved to one of the largest Greek plastic pipe manufacturers characterized by continuous development and innovation.

Keeping its people at the heart of all its actions and aiming to the sustainable development and the cycling economy, KOUVIDIS will continue to provide value added products and services and to constantly improve the installer's work.

learn more about our
40+ years journey

www.kouvidis.gr

KOUVIDIS®

EMM. KOUVIDIS SA
Manufacturer of plastic piping systems

VIO.PA Tylissos 715 00 Heraklion, Crete, Greece
T: +30 2810 831500, F: +30 2810 831502
E: info@kouvidis.gr
www.kouvidis.gr

YouTube