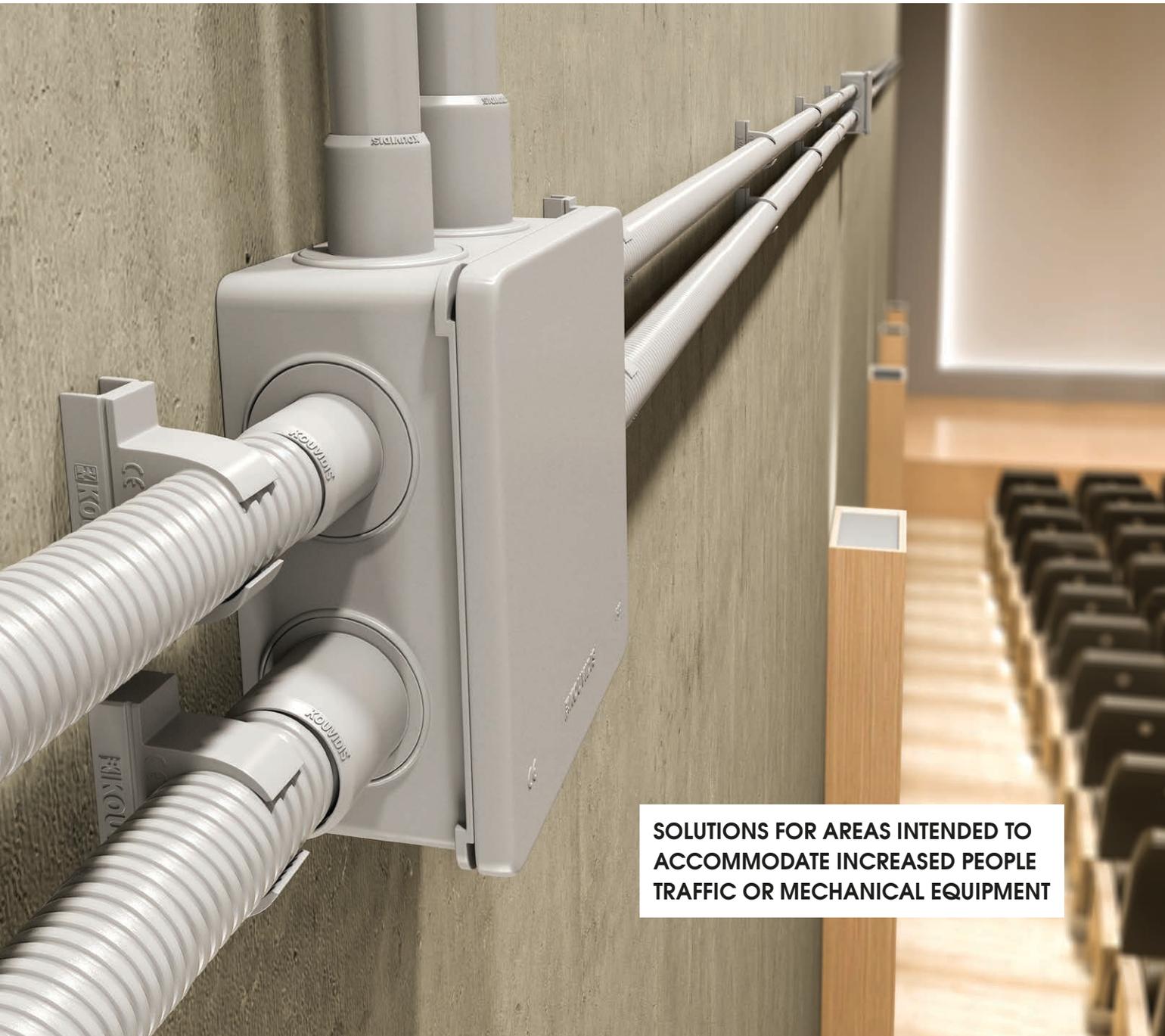


Plastic conduit systems  
**Halogen free & low smoke**



**SOLUTIONS FOR AREAS INTENDED TO  
ACCOMMODATE INCREASED PEOPLE  
TRAFFIC OR MECHANICAL EQUIPMENT**

# A SAFE ENVIRONMENT IS OUR MAIN PRIORITY

Four Seasons Astir Palace Hotel Athens  
(under renovation)

One of the latest projects that trusted  
MEDISOL® HF - MEDIFLEX® HF (750Nt)  
conduit system



we design innovative  
conduit systems that protect  
people and their property



**12** years  
HALOGEN  
FREE  
PRODUCTS

plastic conduit systems made  
from halogen free raw materials

**H**

CONDUR® HF  
CONFLEX® HF

1250Nt

**M**

MEDISOL® HF  
MEDIFLEX® HF

750Nt

### at a glance...

In case of a fire accident, the chlorine released from conventional plastics (halogenated) reacts with the humidity of the atmosphere producing hydrochloric acid which is dangerous and harmful both to people and environment.

KOUVIDIS halogen free and low smoke conduit systems have been designed in such a way in order to develop an additional protection in a burning building.

KOUVIDIS has more than 12 years manufacturing experience in the production of halogen free plastic conduit systems and is one of the precious few manufacturers in Europe that offers a conduit system with heavy type mechanical strength (compression and impact resistance).

## did you know that...

### **1987 LONDON / Kings Cross Station**

An inexplicable short circuit on escalators between the platform and the ticket offices caused a fire that released dense smoke waves that literally caused the escape exits to disappear resulting in the loss of 31.

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### **1996 DUSSELDORF / airport**

Toxic gases released through the false ceilings of the terminal, following a fire that occurred to cables during welding works, causing 17 deaths.

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### **1999 FRANCE / Mont Blanc tunnel**

A Belgian truck carrying margarine, sugar and flour caught fire in the middle of the tunnel. Motorists escaped to sideways shelters of the tunnel, yet they did not manage to reach the emergency exits due to fatal toxic gases released from the local construction materials. The death toll amounted to 39.

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### **2003 SOUTH KOREA / Daewoo**

A fire broke in a train and quickly spread through the plastic and aluminium surfaces all over the train; it also spread to a nearby train. Smoke was so dense and dark that prevented rescue crews from intervening and passengers were trapped. This resulted to 198 casualties and 147 injured.

## THE HISTORY OF KOUVIDIS HALOGEN FREE CONDUITS



The first halogen-free cables are manufactured in Great Britain.

1970

The devastating fire at the Kings Cross Station in London, leads to the pursuit of safer materials.

1980

The casualties from toxic gases from the fire at the Dusseldorf airport terminal is the onset for adopting more stringent specifications.

1996

Following the evolution of halogen free cables, halogen free conduits are also developed in Europe and KOUVIDIS presents heavy type CONDUR® HF - CONFLEX® HF (1250Nt) conduit system.

2006

Onasis cultural centre, one of the most modern architectural projects in Greece, trusts CONDUR® HF - CONFLEX® HF conduit system, stating the importance of security in public gathering spaces.

2010

KOUVIDIS presents medium type MEDISOL® HF - MEDIFLEX® HF (750 Nt) conduit system, while its halogen free series constitutes the first choice in major construction projects, such as Stavros Niarchos Foundation Cultural Center and Four Seasons Astir Palace Hotel in Athens.

2016

# what should I know . . .



## How important is safety in case of a fire accident?

Fire is amongst the most unpredictable threats and possibly one of the major sources of insecurity for communities, especially when occurring indoors, where chances for evacuation are limited. The most common consequences are injuries, toxic poisoning and the loss of life.

The main factors that determine the spread-out of a fire in a burning building are high temperature, properties of burning building materials, and the safety standards afforded by the building (fire safety systems, escape ways, luminous signaling etc). Even in the more organized spaces, the inspection on the suitability of construction materials should be of paramount importance.



## Which products are considered as "halogen free"?

Halogen substances are primarily chlorine, fluoride, bromide and iodine. These exist or are added to several plastics as improvers (such as flame retardants, impact modifiers, etc). However, their behavior, in case of a fire, can be disastrous. During combustion, they release toxic and corrosive gases and emit dense waves of smoke.



## What are toxic and corrosive gases?

When chlorine or fluorine are released from halide chemical products they create a chemical reaction with moisture or water and produce hydrochloric or hydrofluoric acid, thus toxic gases which are dangerous and extremely harmful for people and environment. Inhalation of such gases may cause even death.

At the same time, the corrosive gases that will result from the combustion of halogenated plastic materials may damage any exposed area and cause acute corrosion in a very short time. Usually the effects are extremely loss-making such huge repair costs or even complete destruction of mechanical equipment installed in a burning building.

**What does "emit dense smoke waves" mean?**

During combustion, halogenated plastics produce microscopic gas particles, soot and chemical residues. This combination generates the common dark, dense smoke wave released in case of fire, which panics the entrapped persons and reduces visibility of escape routes. Meanwhile, it hinders evacuation operations by rescue crews.



**What factors should I consider before choosing the right conduits?**

Two main factors must be especially considered when specifying, selecting and installing construction materials in projects. Firstly, fire resistance, i.e. the degree to which a construction material can withstand in case of fire and prevents the propagation of flame. Secondly, the behavior of the construction material when burning, i.e. the quantity and density of smoke emitted as well as the degree of toxicity and corrosiveness.

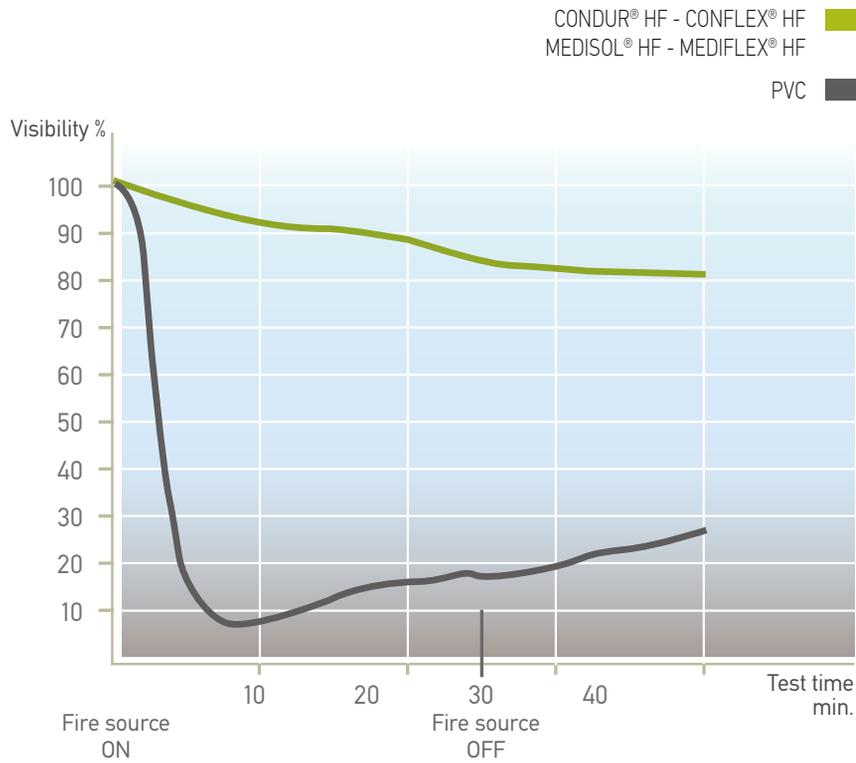


**Where to use halogen free conduits?**

In construction projects where common gathering of public is expected e.g. a conference complex, a commercial building or subway, the behavior of construction materials in case of fire is of increased interest.

In closed areas where costly mechanical equipment is accommodated, e.g. a server room or manufacturing area, the occurrence of a minor fire can cause immeasurable damage due to surface corrosion caused by released gases.





Smoke release (acc. to EN 61034-1)



### EN 61034-1

The above standard measures the smoke density of cables burning under defined conditions. The standard contains test procedures and requirements. Smoke density test is an important aspect of performance evaluation, as it relates to the degree of difficulty for personnel evacuation.

NOTE: The above diagram is a guide in order to explain the difference of visibility degree during combustion between PVC and halogen free conduits.

# the advantages of halogen free conduit systems

CONDUR® HF - CONFLEX® HF & MEDISOL® HF - MEDIFLEX® HF conduit systems have been exclusively designed for construction projects where safety, reliability and reduced environmental footprint are top priority. Their main advantages are as follows:



In case of a fire accident, they don't release toxic and corrosive gases during combustion, protecting people and environment.



In case of a fire accident, they ensure better visibility of escape routes due to their low smoke emission.



They provide higher protection of building facilities and mechanical equipment due to the absence of corrosive gases during their combustion.



They ensure high impact resistance in extreme low temperature conditions (at -45°C).



They contain flame retardants that reduce flame propagating.



They achieve a low environmental footprint as they fully satisfy RoHS and REACH European regulations concerning the use of hazardous and chemical substances respectively.



# the design



## Need

Preventing adverse incidents with fatal outcomes due to the use of unsuitable building materials in public gathering places.



## Research

Designing a product made from top quality raw materials that will not release any toxic or corrosive gases or emit a dense wave of smoke in case of fire.



## Manufacturing technology

Halogen free and low smoke raw materials supplied by the top plastic manufacturers as well as the design of a fully-automated production line (extruders and injections) of latest technology.



## Generation

Two integrated conduit systems, available in heavy and medium type according to their compression resistance, with brand names CONDUR® HF-CONFLEX® HF and MEDISOL® HF - MEDIFLEX® HF in nominal outer diameters from Ø16 to Ø63, according to EN 61386.01, along with a complete series of fittings (bends, couplers, clips, adaptors) and junction boxes.



### Application field

Public gathering places (airports, hotels, tunnels, shopping centres, cinemas, and subways) and places with costly mechanical equipment (engine rooms, industrial spaces, computer rooms, etc.).



### Distribution network

A distribution network with authorized wholesalers of electrical materials with more than 500 sales points all over the Greek and Cypriot territory, served on a daily basis by our 20 privately owned low emission trucks.



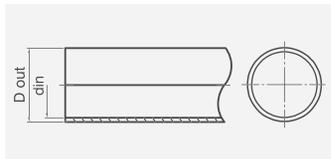
### Environmental footprint

Made from 100% eco-friendly materials that comply with the requirements of the European RoHS and REACH regulations, regarding the use of chemicals and hazardous substances, respectively, and can be recycled at the end of their product life cycle, without burdening the environment.

Heavy Type (1250Nt)



RAL 7035  
light grey



Standards: EN 61386.21, EN 60754-1,  
EN 60754-2

Assembled with

- CONDUR HF Bend
- CONDUR Coupler
- CONDUR Adaptor
- CONDUR Clip



All product's certificates  
are available at [www.kouvidis.com](http://www.kouvidis.com)

**H** CONDUR® HF rigid conduit

44541

Properties

Properties		Class
Resistance to compression	1250Nt/5cm	4
Resistance to impact	6J (at -45°C)	4
Lower temperature range	-45°C	5
Upper temperature range	+120°C	4
Resistance to bending	Rigid	1
Electrical characteristics	With electrical insulated characteristics	2
IP ingress protection	min IP 65	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 PC
Ageing resistance	UV stabilized
Halogen free	No toxic or corrosive gases in case of fire
Less smoke than PVC	Better visibility of escape ways
Rodent repellent	Not attractive to rodents

+ Printed with indelible green color and packed with safety straps in blue color 100% recyclable polyethylene film.

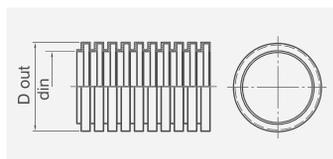
Ideal for outdoor/indoor exposed installations which require increased safety measures and high mechanical requirements such as public gathering places (airports, hotels, tunnels, malls, theaters, subways etc.) and places with costly mechanical equipment (engine rooms, industrial spaces, computer rooms, etc.).

Type	Part number					
		D out	din		kg	(m)
Ø16	1525016	16	12.6	30	2,66	6000
Ø20	1525020	20	16.2	30	3,55	3900
Ø25	1525025	25	21.0	15	2,32	2400
Ø32	1525032	32	27.6	15	3,29	1755
Ø40	1525040	40	34.9	9	2,51	1071
Ø50	1525050	50	45.3	9	3,33	702
Ø63	1525063	63	57.1	9	4,86	396

Heavy Type (1250Nt)



RAL 7035  
light grey



Standards: EN 61386.22, EN 60754-1,  
EN 60754-2

Assembled with

CONDUR HF Bend  
CONDUR Coupler  
CONDUR Adaptor  
CONDUR Clip



**H** CONFLEX® HF pliable conduit

44542

Properties		Class
Resistance to compression	1250Nt/5cm	4
Resistance to impact	6J (at -45°C)	4
Lower temperature range	-45°C	5
Upper temperature range	+120°C	4
Resistance to bending	Pliable	2
Electrical characteristics	With electrical insulated characteristics	2
IP ingress protection	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 PC
Ageing resistance	UV stabilized
Halogen free	No toxic or corrosive gases in case of fire
Less smoke than PVC	Better visibility of escape ways
Rodent repellent	Not attractive to rodents

+ Marked using embossed printing and packed with 100% recyclable polyethylene film including safety straps and an informative green /blue color label.

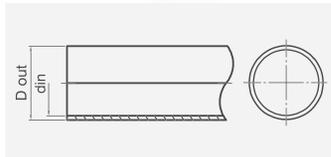
Ideal for outdoor/indoor exposed installations which require increased safety measures and high mechanical requirements such as public gathering places (airports, hotels, tunnels, malls, theaters, subways etc.) and places with costly mechanical equipment (engine rooms, industrial spaces, computer rooms, etc.).

Type	Part number					
Ø16	2525016	16	10.9	50	2,39	3600
Ø20	2525020	20	13.9	50	3,44	3200
Ø25	2525025	25	18.5	25	2,63	1800
Ø32	2525032	32	23.3	25	3,37	1400
Ø40	2525040	40	30.9	20	3,42	880
Ø50	2525050	50	38.9	20	4,51	400
Ø63	2525063	63	51.3	20	6,40	360

Medium Type (750Nt)



RAL 7035  
light grey



Standards: EN 61386.21, EN 60754-1,  
EN 60754-2

Assembled with

- MEDISOL HF Bend
- CONDUR Coupler
- CONDUR Adaptor
- CONDUR Clip



All product's certificates  
are available at [www.kouvidis.com](http://www.kouvidis.com)

**M** MEDISOL® HF rigid conduit

34541

Properties

Properties		Class
Resistance to compression	750Nt/5cm	3
Resistance to impact	6J (at -45°C)	4
Lower temperature range	-45°C	5
Upper temperature range	+120°C	4
Resistance to bending	Rigid	1
Electrical characteristics	With electrical insulated characteristics	2
IP ingress protection	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 PC
Ageing resistance	UV stabilized
Halogen free	No toxic or corrosive gases in case of fire
Less smoke than PVC	Better visibility of escape ways

+ Printed with indelible green/red color and packed with safety straps in red color 100% recyclable polyethylene film.

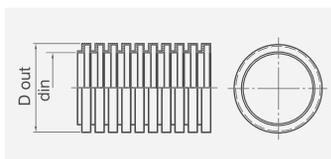
Ideal for indoor/outdoor exposed installations which require increased safety measures and standard mechanical requirements such as public gathering places (airports, hotels, malls, theaters, etc.) and places with costly mechanical equipment (engine rooms, industrial spaces, computer rooms, etc.).

Type	Part number				kg	(m)
Ø16	1535116	16	13.1	30	2,18	6000
Ø20	1535120	20	16.8	30	3,02	3900
Ø25	1535125	25	21.7	30	4,40	2310
Ø32	1535132	32	27.9	15	2,85	1755
Ø40	1535140	40	35.8	9	2,51	1071
Ø50	1535150	50	45.5	9	3,66	702
Ø63	1535163	63	57.8	9	5,40	396

Medium Type (750Nt)



RAL 7035  
light grey



Standards: EN 61386.22, EN 60754-1, EN 60754-2

Assembled with

MEDISOL HF Bend  
CONDUR Coupler  
CONDUR Adaptor  
CONDUR Clip



**M** MEDIFLEX® HF pliable conduit

33542

Properties		Class
Resistance to compression	750Nt/5cm	3
Resistance to impact	min 2J (at -45°C)	3
Lower temperature range	-45°C	5
Upper temperature range	+120°C	4
Resistance to bending	Pliable	2
Electrical characteristics	With electrical insulated characteristics	2
IP ingress protection	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 PC
Ageing resistance	UV stabilized
Halogen free	No toxic or corrosive gases in case of fire
Less smoke than PVC	Better visibility of escape ways

+ Marked using embossed printing and packed with 100% recyclable polyethylene film including safety straps and an informative green/red color label.

Ideal for indoor/outdoor exposed installations which require increased safety measures and standard mechanical requirements such as public gathering places (airports, hotels, malls, theaters, etc.) and places with costly mechanical equipment (engine rooms, industrial spaces, computer rooms, etc.).

Type	Part number					
Ø16	2535116	16	11.1	50	2.40	3600
Ø20	2535120	20	14.0	50	3.10	3200
Ø25	2535125	25	18.6	25	1.90	1800
Ø32	2535132	32	24.1	25	2.90	1400
Ø40	2535140	40	31.2	20	3.10	880
Ø50	2535150	50	39.3	20	4.00	400
Ø63	2535163	63	51.3	20	5.40	360

Heavy Type (1250Nt)



RAL 7035  
light grey



**H** CONDUR® HF bend

Properties

Resistance to impact 6J (at -45°C)

Ageing resistance UV stabilized

Rodent repellent Not attractive to rodents

Type	Part number			A 	R 		
Ø16	4525016	16	12.6	27	55	10	460
Ø20	4525020	20	16.2	35	65	10	420
Ø25	4525025	25	21.0	36.7	90	10	170
Ø32	4525032	32	27.6	47.6	125	6	48
Ø40	4525040	40	34.9	52.9	130	6	84
Ø50	4525050	50	45.3	62	163	4	36
Ø63	4525063	63	57.1	77	191	4	16

Medium Type (750Nt)



RAL 7035  
light grey



**M** MEDISOL® HF bend

Properties

Resistance to impact 6J (at -45°C)

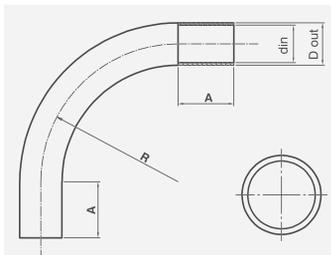
Ageing resistance UV stabilized

Type	Part number			A 	R 		
Ø16	4535116	16	13.1	27	55	10	460
Ø20	4535120	20	16.8	35	65	10	420
Ø25	4535125	25	21.7	36.7	90	10	170
Ø32	4535132	32	27.9	47.6	125	6	48
Ø40	4535140	40	35.8	52.9	130	6	84
Ø50	4535150	50	45.5	62	163	4	36
Ø63	4535163	63	57.8	77	191	4	16

All product's certificates  
are available at [www.kouvidis.com](http://www.kouvidis.com)

Standards: EN 61386.21, EN 60754-1, EN 60754-2

+ Marked using embossed printing and packed in 100% recyclable packaging for their maximum protection.



General properties for Bends	
Temperature range	-45°C to +120°C
IP ingress protection	min IP65
Raw material	Halogen free, heavy metals free (RoHS) and specially stabilized thermoplastic PC
Electrical characteristics	With electrical insulated characteristics
Resistance to flame propagating	Non flame propagating
Halogen free	No toxic or corrosive gases in case of fire
Less smoke than PVC	Better visibility of escape ways

Note: Bends packaging do not contain coupler.

## Junction Boxes



RAL 7035  
light grey



CONDUR<sup>®</sup> IAR  
plug in seals



Patent Protected: EP2698792



CONDUR<sup>®</sup>  
plug in grommets



CONDUR<sup>®</sup>  
without seals



Standards: EN 60670-22, EN 60754-1,  
EN 60754-2

## Watertight with or without seals

Properties	CONDUR <sup>®</sup> IAR plug in seals	CONDUR <sup>®</sup> plug in grommets	CONDUR <sup>®</sup> without seals
Box raw material	PC (RoHS)	PS (RoHS)	PC (RoHS)
Temperature range	-25°C to +60°C		
Electrical characteristics	With electrical insulated characteristics		
Resistance to flame propagating	Non flame propagating		
Number of entries	7	7	-
Kind of entries	Plug in seals	Plug in grommets	-
Ingress protection	IP 55	IP 55	IP 65
Number of base knock outs	4	4	-
Conduit alignment	Yes	Yes	No
Condensation opening	Yes		
Flame retardant	650°C		
Voltage	800V		
Halogen free	No toxic or corrosive gases in case of fire		
UV stability	Yes		
Less smoke than PVC	Better visibility of escape ways		

\* Cover plate and plug in seals are made of PE

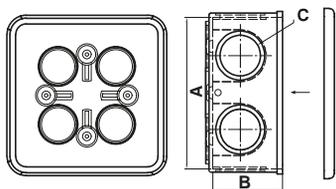
### ➤ Watertight due to their elastic and directly mounted cover plate.

**Junction boxes with seals:** These boxes are provided with plug in seals or stepped grommets for easy positioning of cables, without the use of additional fittings, after cutting at the pre-marked points. CONDUR adaptors, of different diameters, can be easily fastened in the openings after pushing out the plug in seals/grommets.

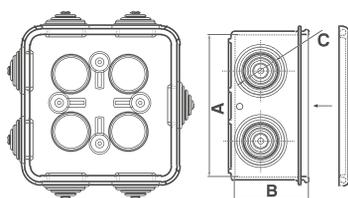
**Junction boxes without seals:** The installer can open any hole of every diameter according to the installation requirements.

All product's certificates  
are available at [www.kouvidis.com](http://www.kouvidis.com)

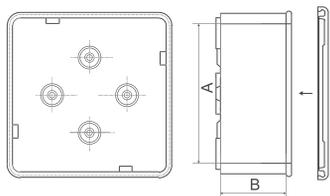
## Junction boxes



**CONDUR<sup>®</sup> IAR**  
plug in seals



**CONDUR<sup>®</sup>**  
plug in grommets



**CONDUR<sup>®</sup>**  
without seals

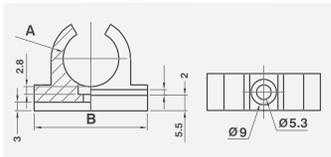


Type	Part number	A mm	B mm	C mm			
plug in seals	Ø16/20	30200160	67	38	21.6	10	240
	Ø20/16	30200200	82	43	21.6	10	150
	Ø25/32	30202250	101	51	35.1	5	100
plug in grommets	Ø16/20	3035016	67	38	21.6	10	170
	Ø20/16	3035020	82	43	21.6	10	150
	Ø25/32	3035025	101	51	35.1	5	40
plug without seals	Ø16	3015016	62	32	-	10	210
	Ø20	3015020	82	36	-	10	170
	Ø25	3015025	91	41	-	10	150
	Ø32	3015032	101	51	-	5	100

**Fittings**



RAL 7035  
light grey

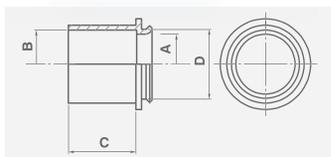


Patent Protected: EP2698792

**Fittings**



RAL 7035  
light grey



Patent Protected: EP2698792

All product's certificates  
are available at [www.kouvidis.com](http://www.kouvidis.com)

**CONDUR<sup>®</sup> IAR clips**

**Properties**

Raw material

Halogen free, heavy metals free (RoHS) and specially stabilized thermoplastic PC

**Installation guidelines**

Recommended fastening space is 50cm for vertical and 40 cm for horizontal installations

+ They can be mounted with the use of 4mm screws and plugs. They have side slots for easy positioning to rails.

Type	Part number	A mm	B mm		
Ø16	41250160	15.8	35	4x50	2800
Ø20	41250200	19.8	40	4x50	2000
Ø25	41250250	24.8	46	4x30	1800
Ø32	41250320	31.8	53	30	1380
Ø40	41250400	39.8	63	20	920
Ø50	41250500	49.8	74	20	840
Ø63	41250630	62.8	88	20	840

**CONDUR<sup>®</sup> IAR adaptors**

**Properties**

Raw material

Halogen free, heavy metals free (RoHS) and specially stabilized thermoplastic PE

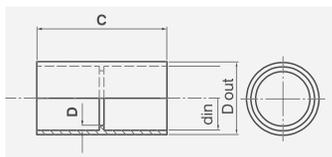
+ Assembled with CONDUR junction boxes after removing their seals or grommets. Adaptors with Part No. 40250160 and 40250200 can be mounted on junction boxes with type 16/20 and 20/16 while 40252250 and 40252320 can be mounted with the type Ø25/32.

Type	Part number	A mm	B mm	C mm	D mm		
Ø16	40250160	13	16	16	20	4x30	1800
Ø20	40250200	16.5	20	20	20	4x30	1200
Ø25	40252250	21.5	25	32	33	20	1080
Ø32	40252320	27.5	32	35	33	20	840

## Fittings



RAL 7035  
light grey



Patent Protected: EP2698792

Standards: EN 61386.1, EN 60754-1,  
EN 60754-2



## CONDUR® IAR couplers

### Properties

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

Ingress protection min IP65

Temperature range -45°C to +120°C

Type	Part number						
		D out	min din	C mm	D mm		
Ø16	42250160	20	16	51	1.5	30	2280
Ø20	42250200	23.5	20	51.5	1.5	30	1620
Ø25	42250250	28.5	25	51.5	1.5	30	1260
Ø32	42250320	37	32	65	2	20	480
Ø40	42250400	44.5	40	81.4	2	15	360
Ø50	42250500	55.6	50	100.5	2.5	10	200
Ø63	42250630	69.8	63	121	2.8	8	64

### General properties for Fittings

Temperature range -25°C to +120°C (clips, adaptors)

Electrical characteristics With electrical insulated characteristics

Ageing resistance UV stabilized

Resistance to flame propagating Non flame propagating

Halogen free No toxic or corrosive gases in case of fire

Less smoke than PVC Better visibility of escape ways

# indicative application fields

Halogen free plastic conduit systems are ideal for areas where the risk of fire will constitute threat to human life as well as a source of severe property damage.

**Pubic gathering spaces** Airports, tunnels, subway, theatres, conference centres, schools

H



Tunnels

H



Subway

M



Schools

**Areas where costly mechanical equipment is accommodated or special temperature resistance is required** Engine rooms, server rooms, computer rooms, boiler rooms, warehouses, industrial spaces.

H M



Production floors

H M



Industrial spaces

M



Computer rooms



Stavros Niarchos Foundation Cultural Center

## recent major projects

A few defining projects, during 2016-2017 period, that trusted CONDUR® HF - CONFLEX® HF and MEDISOL® HF - MEDIFLEX® HF.

Project	Product	Location	Type of Project
Stavros Niarchos Foundation Cultural Center	CONDUR HF - CONFLEX HF	Greece (Athens)	Culture projects
Park Lane Resort & Spa (under construction)	MEDISOL HF - MEDIFLEX HF	Cyprus (Limassol)	Hotels
Expansion of Paidon Agia Sofia hospital	CONDUR HF - CONFLEX HF	Greece (Athens)	Sanitary areas
AFI Park - Mall in Brasov (under construction)	MEDISOL HF - MEDIFLEX HF	Romania (Brasov)	Industrial buildings
ARGON LDA Warehouses, Porto	MEDISOL HF - MEDIFLEX HF	Portugal (Porto)	Industrial buildings
Med Sea Health & Mare Village	CONDUR HF - CONFLEX HF	Greece (Halkidiki)	Hotels
Expansion of Larnaca International Airport	MEDISOL HF - MEDIFLEX HF	Cyprus (Larnaca)	Infrastructure
Four Seasons Astir Palace Hotel Athens (under construction)	MEDISOL HF - MEDIFLEX HF	Greece (Athens)	Hotels

## 5 things to remember...

- 1 In case of a fire accident, halogen free conduit systems don't release toxic gases, during combustion, protecting people in a burning building.
- 2 A building property, in which a fire has erupted, can be saved from corrosive gases if the used building materials are free of halogens.
- 3 The mechanical resistance of KOUVIDIS halogen free conduits (High impact resistance at -45°C) is higher than any other conventional product as their raw material is based on Polycarbonate (PC), a virtually unbreakable material, used in products that require very high levels of safety, such as motorcycle helmets.
- 4 Their high impact strength, at extremely low temperature environments (at -45°C), make them ideal for spaces with high temperature requirements such as as a boiler room.
- 5 KOUVIDIS conduit systems are produced by 100% eco-friendly raw materials, fully recyclable at the end of the product life cycle, with a low environmental footprint.

### ... one more thing

KOUVIDIS has more than 39 years of experience in the production of plastic piping systems and more that 12 years manufacturing experience in the production of halogen free plastic conduit systems.

## LEGEND



Nominal outer diameter (mm)



Nominal minimum inner diameter (mm)



Packing (m/coil)



Packing (m/bundle)



Product Conformity to all requirements of relative European Directives



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



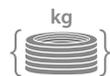
Heavy Type (According to EN 61386-01, compression strength)



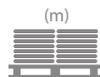
Packing (pieces/box)



Packing weight (kg)



Coils weight (Kg)



Coils of pliable conduits on pallet (m)



Certification body of Quality-Management System EN ISO 9001:2008



Certification body of Environmental Management System EN ISO 14001:2004



Certification body of Occupational Health and Safety Management System OHSAS 18001:2007



Medium Type (According to EN 61386-01, compression strength)



Bundles of rigid conduits (m)



Bigger Packing for fittings (pieces)



Dimensions (mm)



Product with extra UV Stability



Halogen free product



High impact strength in extreme temperatures of -45°C



Environmentally friendly product. Halogen free, heavy metals free (RoHS), low smoke, SVHC-free (REACH) with 100% eco-friendly packaging



Distinction among the best workplaces in Greece (2017)

KOUVIDIS is a purely Greek second - generation family company, specialized in the development and production of plastic conduit systems for cable protection, sewage and drainage since 1979.

The three distribution centers (Athens, Thessaloniki, Crete) and the two subsidiaries companies in Cyprus and Germany ensure the necessary capacity to serve daily more than 500 sales points both in Greece and abroad. Holding a leading position in the Greek market, and having a clearly customer oriented philosophy, KOUVIDIS mission is to ensure Electrician's safety and to constantly improve his work through the design and the production of innovative and value-added products.



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