



Fire protection cable duct  
PYROMENT®-IK90



# PYROMENT®-IK90

## Innovative technology for dampening cable fires

PYROMENT®-IK90, developed by G+H Insulation, is the first electric installation duct (I-duct) to actively dampen cable fires and thus minimise consequential damage and costs in the case of a cable fire. If a fire should start in a cable duct – due to a technical defect, for example – it could spread for several hundred metres through conventional I-ducts, in the worst case scenario. With the innovative PYROMENT®-IK90, damage of such an enormous magnitude can now be prevented!

PYROMENT®-IK90 comprises a galvanised or stainless-steel sheet with a special intumescent insulation sheath and a top coat. In a fire, the innovative intumescent »pyroplast-ST 100« material foams up immediately, thus – in contrast to conventional I-ducts – instantly preventing the fire from spreading through the ducts. For operators and developers, PYROMENT®-IK90 provides not only a high degree

of safety, but also economic advantages in the form of considerably reduced costs in the event of damage.

PYROMENT®-IK90 also prevents cable fires from spreading into the surrounding area and prevents the development of hazardous fumes caused by unprotected cabling. This ensures that escape and rescue routes are kept clear for the evacuation of people and for the fire service and rescue teams.

When installing PYROMENT®-IK90, fitters can profit from a saving in installation time of up to 80 %, thanks to the thin, lightweight material! And the I-duct can also be installed in poorly accessible and confined spaces.

### Contents

The advantages at a glance	3
Benefits for operators	4-7
Installation advantages	8-10
G+H Insulation – throughout Germany	11

## Active fire protection thanks to innovative technology – the advantages of the PYROMENT®-IK90 at a glance

1

### Actively stop the spread of fire – increased safety and reduced costs

In a fire, the innovative intumescent sheath foams up immediately, thus instantly preventing the fire from spreading through the ducts (see page 4).

2

### Active fire protection for the most difficult locations

PYROMENT®-IK90 is thinner than conventional systems. This makes it possible to provide active fire prevention even in confined and poorly accessible locations (see page 5).

3

### Dust-free installation allows use in particularly sensitive areas

PYROMENT®-IK90 can be installed in sensitive environments, such as clean rooms, thanks to its dust-free installation method (see page 6).

4

### Certified and maintenance friendly

PYROMENT®-IK90 is independently monitored and has proven itself on the market over many years. It is particularly durable and exceptionally maintenance friendly (see page 7).

5

### Delivery of made-to-measure units ensures quick and easy installation

New: The prefabricated I-ducts – also for difficult geometric shapes – make installation easy (see page 8).

6

### Savings of up to 80 % in installation time

The thin, lightweight material makes the units easy to transport and install – resulting in savings of up to 80 % in installation time and labour costs (see page 9).

7

### Ducts may be completely filled

PYROMENT®-IK90 ducts may be completely filled, provided that the electrical installation guidelines are observed (see page 10).

## PYROMENT®-IK90 in detail – **advantages for operators**

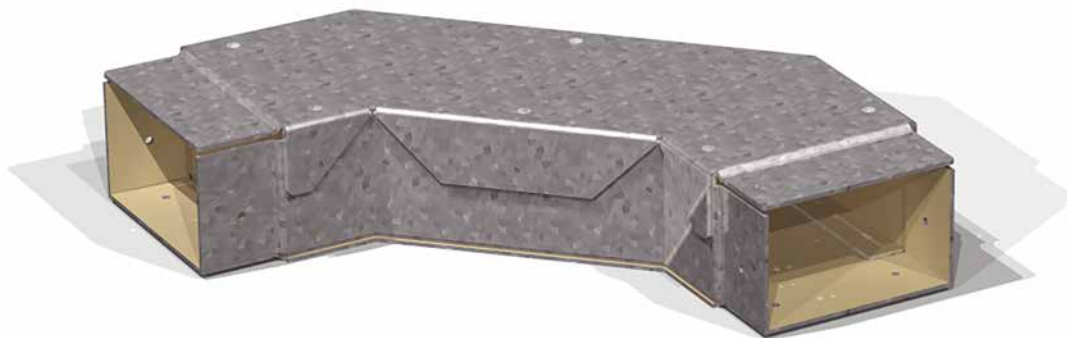
**1**

### **Actively stop the spread of fire – increased safety and reduced costs**

Conventional cable ducts with sheet metal casing are lined with mineral-wool, silicate or gypsum board. They prevent fire from spreading to the surrounding area – but do not stop the cables themselves from burning. Therefore, if a cable fire should start – due to a technical defect, for example – it could spread for several hundred metres through conventional I-ducts.

G+H Insulation has developed the first electric installation duct system to actively dampen cable fires: the PYROMENT®-IK90. Its innovative technology – the intumescent »pyroplast-ST 100« construction material – foams up when it becomes hot and immediately stops the fire from spreading further along the duct. In doing so, it prevents immense damage and production stoppages.

It allows escape and rescue routes to be effectively protected, so that people can be evacuated more easily and damage to the building is minimised.



Flat bracket for four-sided duct 80 x 50 mm

**2**

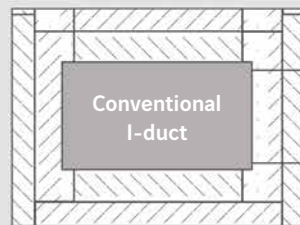
## Active fire protection for the most difficult locations

PYROMENT®-IK90 is much thinner than conventional systems, which means it can be installed in even poorly accessible and confined spaces.

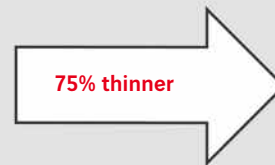
This new type of system needs only a thin coating, 1.0 to 2.0 mm thick, and the metal sheet is only 0.6 to 1.0 mm thick, depending on the size of duct.

In comparison: Conventional I-ducts are 15 to 40 mm thick and need various additional coverings, 10 to 25 mm thick, around the joints.

### Cross-section four times smaller



approx. 15 to 40 mm thick +  
approx. 10 to 25 mm covering



1.0 to 2.0 mm thin coating +  
0.6 to 1.0 mm sheet thickness



Versatile applications thanks to the thinness of the sheet metal

## PYROMENT®-IK90 in detail – **advantages for operators**

**3**

### **Dust-free installation allows use in particularly sensitive areas**

PYROMENT®-IK90 is installed without producing any dust whatsoever. The system is therefore also perfectly suited for use in sensitive environments, such as in hospitals, office buildings, computer centres, clean rooms and in the food industry.

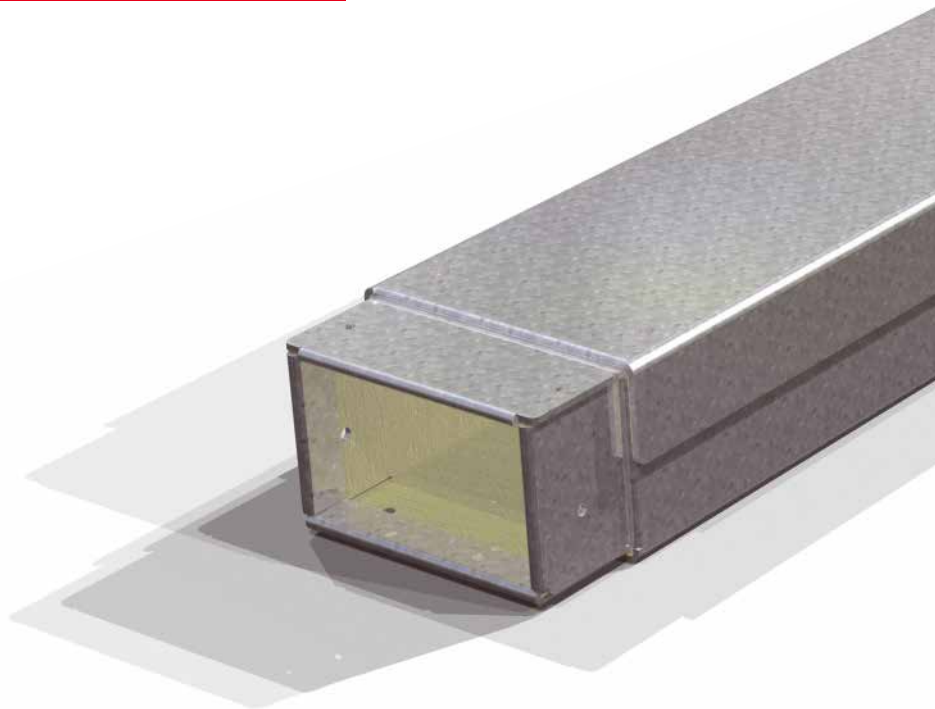
### **Particularly interesting applications for PYROMENT®-IK90**

<b>Places of assembly</b>	<b>Production facilities</b>
Stadiums and arenas	Industrial buildings
Office buildings	Laboratories
Airports	Food industry
Public buildings	Production and storage halls
Hospitals	
Hotels	



More safety – including for places of assembly





**4**

### **Certified and maintenance friendly**

The PYROMENT®-IK90 is classified for the fire resistance classes I 30 to I 120 according to DIN 4102 part 11 and has a general type approval. In addition, it has proven its fire protection effectiveness according to the European test standard part 5 (fire resistance classes EI 30 - EI 120) also for external fire. A European approval from the DiBT is available for this.

PYROMENT®-IK90 is extremely maintenance friendly, particularly dimensionally stable and practically indestructible. The screw connections can be permanently fitted. The ducts can be cleaned easily from the outside.



Reliable fire protection for  
sensitive areas

## PYROMENT®-IK90 in detail – **installation advantages**

**5**

### **Delivery of made-to-measure units ensures quick and easy installation**

Previously, you would have needed to make six to eight cuts in plates and brackets to install a three-sided duct. This involved cutting materials to size and joining them together. G+H Insulation manufactures the PYROMENT®-IK90 in one piece, if required, for a perfect fit – even for difficult geometric shapes. A coloured coating may be applied to the exterior of the PYROMENT®-IK90 by the developer, if required, to match the surroundings on site.



Quick installation thanks to perfect-fit prefabrication



## **6** Savings of up to 80 % in installation time

Alterations to the PYROMENT®-IK90, such as changes in length, can be made quickly and easily using conventional sheet metal working tools. The comparatively low weight of the PYROMENT®-IK90, at just 6.5 to 10.5 kg/m<sup>2</sup> makes transport significantly easier (in comparison: a conventional I-duct made by our competitors weighs approximately 15 kg/m<sup>2</sup>). Overall, the PYROMENT®-IK90 takes about 80 % less time to install – resulting in valuable savings in labour costs.



## PYROMENT®-IK90 in detail – **installation advantages**



**7**

### **Ducts may be completely filled**

Thanks to the innovative, thin material, PYROMENT®-IK90 may be completely filled with cable materials. Whereas only up to 40 % of a conventional I-duct may be filled (or up to 6 kg/m), the PYROMENT®-IK90 allows 100 % of the space to be filled (or up to 34 kg/m with direct loading on the duct floor).

Furthermore, PYROMENT®-IK90 can be easily recoated and is also available as a round duct.



Round I-duct, Ø 253 mm, with copper pipe, synthetic rubber insulation and electric cables



**INSULATION**



**FIRE PROTECTION**

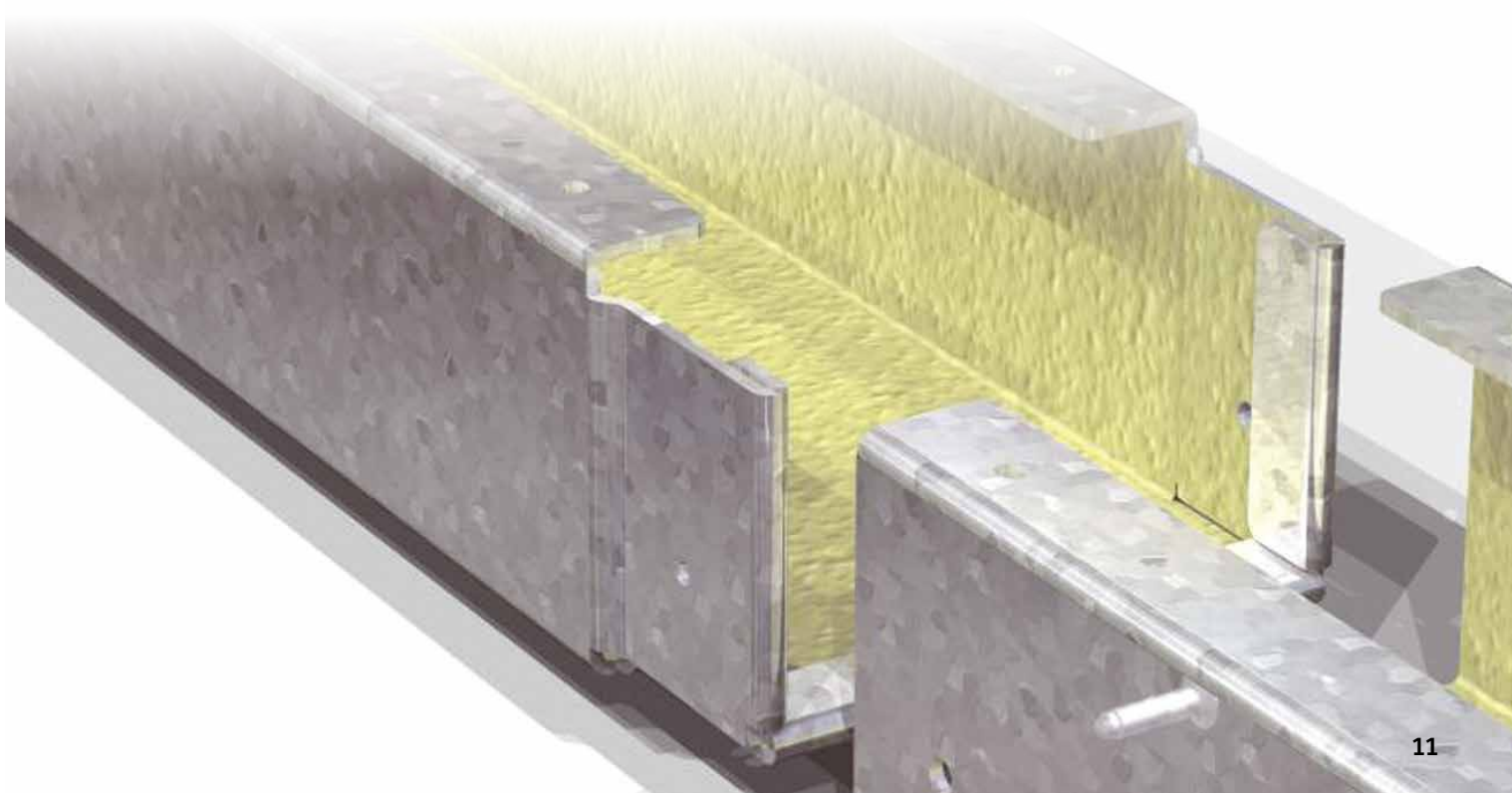


**NOISE CONTROL**



Too Hot, too cold, too warm, too quiet?

**Viewing sample:**  
**PYROMENT®-IK90**







**G+H ISOLIERUNG GmbH**

Leuschnerstraße 2  
97084 Würzburg  
Germany  
Phone: +49 931 60081-0  
Fax: +49 931 60081-29  
[info@guh-group.com](mailto:info@guh-group.com)  
[www.guh-group.com](http://www.guh-group.com)