

GUIDING DETAILS:  
Fire-teK® DuctProtect System



Standard solutions for the jobsite

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These guiding details are supposed to provide you the opportunity to manage situations on the jobsite that do not correspond to the standardized version documented in accordance with the fire-test standard and documented in the general installation manual.

Every construction site is different and needs both: standard mounting installations and “special” solutions. With this document we offer you the opportunity to solve such situations.

In general, the installation manual in combination with the associated test certificates and test reports represents the basis for all scenarios and should be considered in the first step.

## KNAUF INSULATION FIRE-TEK® DUCTPROTECT

System name	Fire resistance class	Application	Product name	Density [kg/m <sup>3</sup> ]	Thickness [mm]
<b>Fire-teK® DuctProtect 30 R SYSTEM</b>	EI 30 (vehicle ↔) S	Solid ceiling	Fire-teK® BD 907 ALB*	70	60 - 100
		Dry wall			
		Solid wall	Fire-teK® BD 918	180	30

\* ALB = reinforced black alu foil

## NON STANDARDIZED SOLUTIONS

- ✓ One-side fire-rated duct fixation to the dry wall
- ✓ Wall and ceiling duct penetration with connection to 90° duct bends elements
- ✓ Vertical duct fixation in a shaft
- ✓ Wall penetration through an EI30 shaft wall

Details for the mounting of our Fire-teK® DuctProtect Systems are explained in our user manuals on [www.knaufinsulation-ts.com](http://www.knaufinsulation-ts.com)

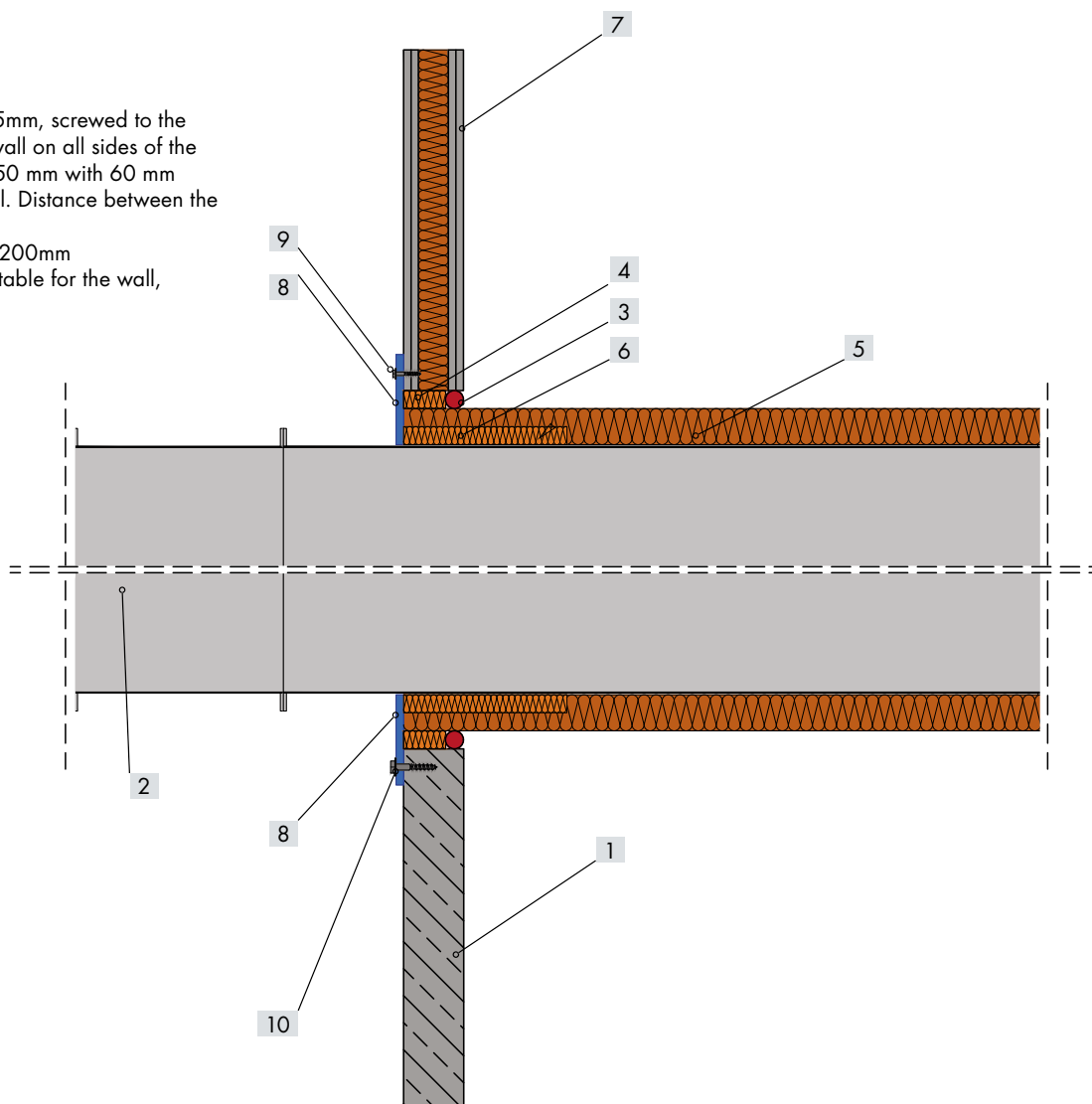


## NON-STANDARDIZED SOLUTIONS

On the following pages you will find non-standardized situations, which can be solved in the described ways.

### ONE-SIDE FIRE-RATED DUCT FIXATION TO THE WALL

- 1 Solid wall
- 2 Steel duct
- 3 Fire-teK® INT
- 4 Power-teK® LW STD
- 5 Fire-teK® BD 907 ALB
- 6 Fire-teK® BD 918
- 7 Dry wall  $\geq$  EI30
- 8 Plasterboard strips 12.5mm, screwed to the gypsum plasterboard wall on all sides of the duct, minimum width 150 mm with 60 mm overlapping on the wall. Distance between the screws max. 200 mm
- 9 Screws, distance max. 200mm
- 10 Screws with dowels suitable for the wall, distance max. 200mm

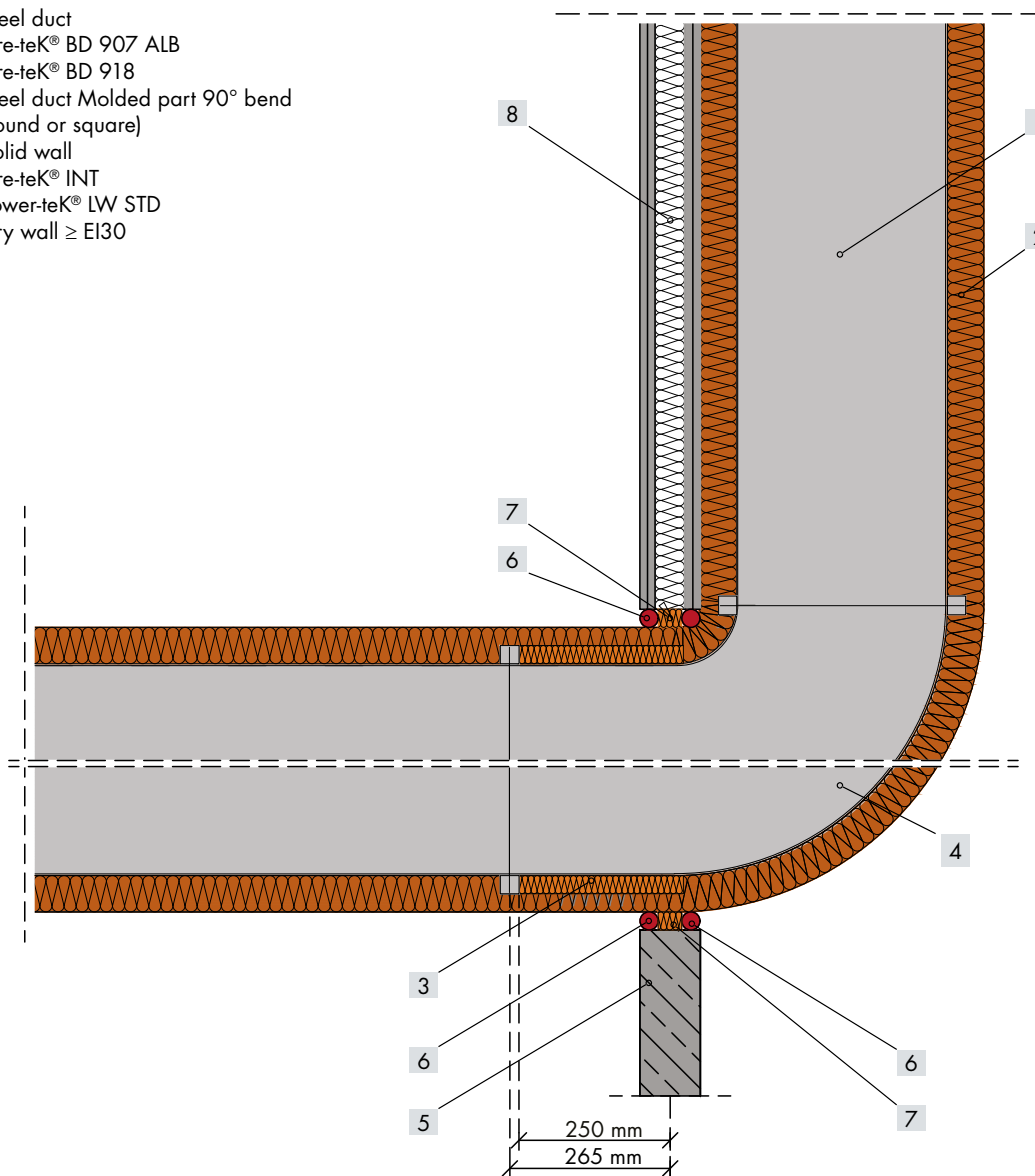


Application: Fire-teK® DuctProtect EI 30 R  
**Fixation of the duct to the wall**  
 one-sided fire classification requirements

## WALL AND CEILING DUCT PENETRATION WITH CONNECTION TO 90° DUCT BENDS ELEMENTS

In order to be able to mount directly to the wall, the cladding of the ventilation duct must be carried out in advance. If this is not possible, a minimum distance of 100 mm must be maintained between the wall and the ventilation duct for installation.

- 1 Steel duct
- 2 Fire-teK® BD 907 ALB
- 3 Fire-teK® BD 918
- 4 Steel duct Molded part 90° bend (round or square)
- 5 Solid wall
- 6 Fire-teK® INT
- 7 Power-teK® LW STD
- 8 Dry wall ≥ EI30

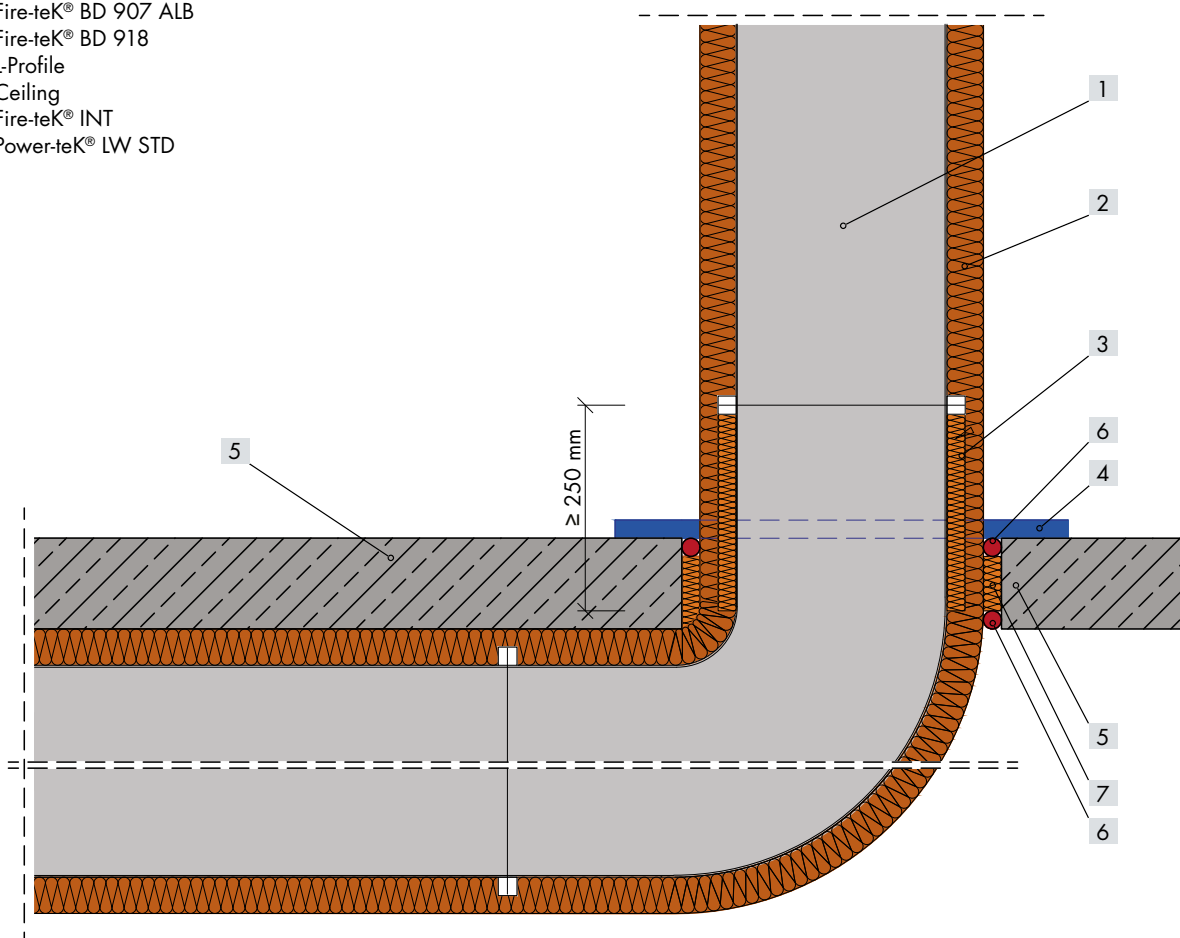


Application: Fire-teK® DuctProtect EI 30 R  
**Wall and ceiling duct penetration**  
 with connection to 90° duct bends elements

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## WALL AND CEILING DUCT PENETRATION WITH CONNECTION TO 90° DUCT BENDS ELEMENTS

- 1 Steel duct
- 2 Fire-teK® BD 907 ALB
- 3 Fire-teK® BD 918
- 4 L-Profile
- 5 Ceiling
- 6 Fire-teK® INT
- 7 Power-teK® LW STD

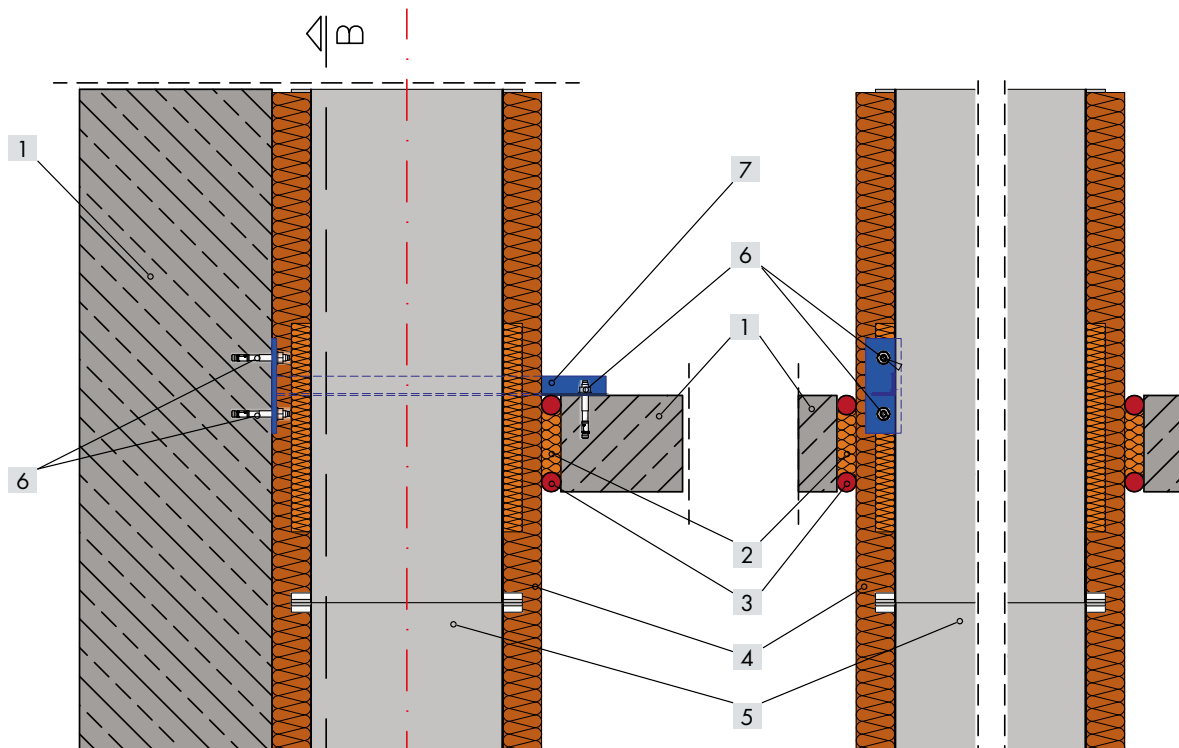


Application: Fire-teK® DuctProtect EI 30 R  
**Wall and ceiling duct penetration**  
 with connection to 90° duct bends elements

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## VERTICAL DUCT FIXATION IN A SHAFT

- 1 Ceiling
- 2 Power-teK® LW STD
- 3 Fire-teK® INT
- 4 Fire-teK® BD 907 ALB
- 5 Steel duct
- 6 For the surface of suitable dowels
- 7 L-profile or rail



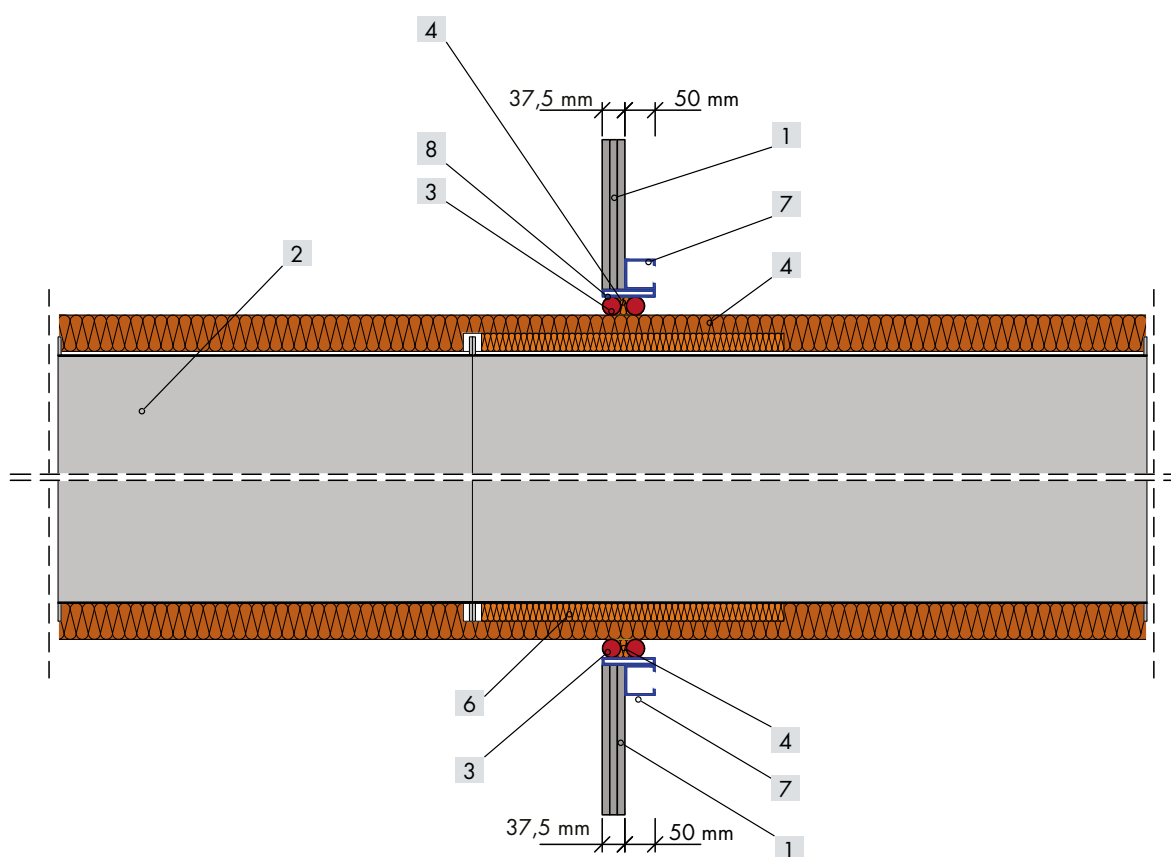
### ALTERNATIVELY:

Connection to the solid wall with profile rails and support of the rail on the reinforced concrete ceiling.

	Wall bracket	Rail
Duct sizes		
<b>up to 500 mm edge length</b> <b>(circumference ≤ 2000 mm)</b>	e.g. Hilti MQK 41 (or statically equivalent)	e.g. Hilti MQ21.5 (or statically equivalent)
<b>from 500 mm edge length</b> <b>(circumference &gt; 2000 mm)</b>	e.g. Hilti MQK 41 (or statically equivalent)	e.g. Hilti MQ41 (or statically equivalent)
<b>up to 1250 x 1000 mm</b> <b>(circumference ≤ 4500 mm)</b>	according to static requirements	according to static requirements

## WALL PENETRATION THROUGH AN EI 30 SHAFT WALL

- 1 shaft wall  $\geq$  EI30
- 2 Steel duct
- 3 Fire-teK® INT
- 4 Power-teK® LW STD
- 5 Fire-teK® BD 907 ALB
- 6 Fire-teK® BD 918
- 7 All-round replacement with C-profile
- 8 Plasterboard strip d = 12.5 mm screwed to the C-Profile, b  $\geq$  75mm, distance of the screws 200 mm



## OUR MINERAL WOOL PRODUCTS WITH ECOSE® TECHNOLOGY!

Following the successful launch of ECOSE® Technology in building insulation, Knauf Insulation has decided to extend its use of this innovative binding technology to technical insulation products.

We almost exclusively use natural materials as the basic material for our mineral wool products. With our formaldehyde-free binder ECOSE® Technology, we reduce energy consumption during manufacture and improve the energy balance of our products. With the receipt of the **Eurofins Indoor Air Comfort Award**, our insulation materials have been proven to contribute to improved indoor air quality and are therefore

ideally suited for sustainable use in building technical insulation.

**Knowing that people spend 90% of their life time inside, the air quality in their working and living environment really matters.**



### ENVIRONMENTAL PRODUCT DECLARATIONS (EPD)

In order to enable a correct assessment of the impact of our insulation materials on the environment, we provide you with information relevant to your decision. Our products are assessed with regard to their sustainability over their entire life cycle. This is done with the help of a life cycle assessment across each phase – from start to finish.

We make the results available to you in the form of environmental product declarations (EPD) for each product.

<https://info.knaufinsulation-ts.com/de/download-epd-labelled-products-from-knauf-insulation-technical-solutions>



## KNOWLEDGE PLATFORM

Exper-team offers a knowledge center with know-how transfer for all areas of technical insulation.

From experts for experts!





## DISCOVER OUR NEW BIM FACTORY FOR TS PLATFORM TO CREATE BIM OBJECTS ACCORDING TO YOUR NEEDS!

### MAKE USE OF THE BENEFITS:

- ✔ Possibility to create instantly custom BIM objects of insulation systems, according to your needs
- ✔ Intuitive selection of the insulation product/system and equipment (pipe or duct), based on application, technical properties, dimensions and national energy efficiency regulations
- ✔ Possibility to get brand visible or product neutral BIM objects
- ✔ BIM object available in Revit, Archicad and IFC formats
- ✔ Periodical free webinars

### Free and intuitive platform to generate BIM objects.

Save time and enhance your projects with high-quality technical insulation solutions!

Discover our smart solutions for thermal insulation (Thermo-teK range) and fire protection (Fire-teK® systems) of pipes and ducts, available in Revit, Archicad and IFC formats.

DISCOVER THE NEW  
WAY OF DESIGNING:  
USE BIM FACTORY FOR  
TS PLATFORM!



## KNAUF INSULATION TECHNICAL SOLUTIONS SUPPORT

Competent experts, with long-term experience in the insulation industry, are available for sharing their knowledge.



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## FOR A BETTER WORLD

Our products save energy, cut emissions and are designed to make sure buildings and applications are good for the environment and keep people healthy, safe and well. Across our company, we have been working on sustainability for over a decade. We have focused on zero harm, reducing our energy use and emissions, recycling our production waste, incorporating circular economy principles and constantly campaigning for better and more sustainable buildings and applications. Over the past decade, we have achieved great things and we are proud of how we have changed our company, helped our colleagues, communities and customers and reduced our impact on the environment. But sustainability is a process of continuous improvement. We must do more for our people and our environment. That's why we've created our new sustainability strategy. We call the new strategy 'For A Better World' because it builds on the success of our mission statement: "Our vision is to lead the change in smarter insulation solutions for a better world."



### LIVING WITH A GREEN HEART

#### LIVING WITH A GREEN HEART

The "Living with a Green Heart" initiative promotes a comprehensive approach to sustainable development with **emphasis on societal and social sustainable development**, placing an informed individual at the forefront of sustainable transformation of society. "Living with a Green Heart" presents a unique story and approach that encourages companies, organisations, and individuals to:

- ✓ Create sustainable products and solutions which can transform grey cities into green oasis, build safe and comfortable homes and lead to a better world for all of us.
- ✓ Lead social sustainability actions, cocreating a more informed and kinder future for ourselves and those that come after us.
- ✓ Build a friendlier and more responsible environment for employees at all levels and in all aspects, appreciating the diversity and improving our relationships, as well as the way we work, collaborate, and coexist within our environments.

## CONTACTS

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FOR FURTHER INFORMATION VISIT  
 OUR WEBSITE [WWW.KNAUFINSULATION-TS.COM/](http://WWW.KNAUFINSULATION-TS.COM/)



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### COMPANY PROFILE

Knauf Insulation is one of the most respected names in the insulation industry worldwide with over 40 years of experience and still growing fast to nearly 6.000 employees in more than 40 countries and 29 manufacturing sites. Being part of the family-owned Knauf group, Knauf Insulation Technical Solutions provides solutions for customers' requirements in industry, marine applications, heating, ventilation and air conditioning. A profound market understanding and insulation know-how enables us to provide a broad range of products to meet your specific needs.

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