

NEW!
First cable
bandage with
FM 3971
approval



PYRO-SAFE® DG-CR 0.7 Cable bandage

Intumescent fire protection cable bandage
for cables and cable support systems

svt – Your Full-Service Provider for Passive Structural Fire Protection

The svt group of companies has been one of the leading full-service providers in the area of passive structural fire protection for more than 50 years. We offer an extensive portfolio of state-of-the-art fire protection products and applications worldwide. This includes both simple penetration sealing solutions and complex combined penetration seals as well as solutions for fire protection joints or protecting entire cable systems.

Our own research & development, production and furnaces at six locations as well as international branches and a partner network covering 50 countries make comprehensive support possible on the basis of certified fire protection solutions, which can be tailored to your individual market requirements if required.

This makes us a powerful partner for your success!



Table of Contents

Areas of Application	4
Fire Protection for Cable Systems	5
Benefits at a Glance	6
References	7
Product Data, Tests and Certificates	8
Installation Steps	10

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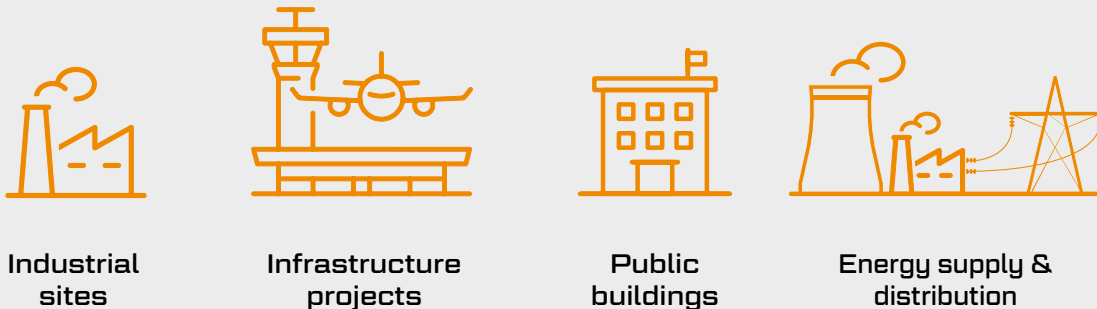
This brochure is interactive. If you want to go to a specific page, just click on the respective entry or page number in the table of contents. On any page you can return to the table of contents by clicking on the headline.

PYRO-SAFE® DG-CR 0.7

Areas of Application

Cable systems with a wide range of functionalities and sizes are part of any building. Especially in public buildings, industrial sites and power plants these systems are installed in great numbers – often without cover, on cable support systems, in cable tunnels or behind wall and floor panelling. They are used to supply practically every single room on every floor.

PYRO-SAFE® DG-CR 0.7 is a product that is successfully used worldwide to protect cable systems in building construction, industrial plants and offshore facilities. This includes hospitals, railway stations and airports, power plants and electrical substations as well as heavy industry and nuclear facilities.



Industrial sites

Infrastructure projects




Public buildings

Energy supply & distribution

PYRO-SAFE® DG-CR 0.7 is used for wrapping cables and conductors of all types without any limit to the size of the total conductor cross-section of the individual cables. It is possible to apply the bandage to single cables and cable bundles, which can be arranged vertically, horizontally or at an angle.

The bandage can also be used to protect cable support systems (trays or ladders). Likewise it is possible to apply it to cables which are freely suspended or directly attached to the building element.

Areas of application

Services	Application	
	Electrical , data and telecommunication cables of all types	Without limit to the size of the total conductor cross-section of the individual cables. Installed or arranged vertically, horizontally or at an angle.
	Cable bundles	
	Cable support systems	Non-combustible cable trays or cable ladders with construction material class DIN 4102-A or classes A1 and A2-s1, d0 in accordance with DIN EN 13501-1. Installed or arranged vertically, horizontally or at an angle.

PYRO-SAFE® DG-CR 0.7 is always a valuable solution when it takes great effort or when it is not possible at all to clean the cables. With the bandage applied to the cables, cleaning them will not be necessary anymore.

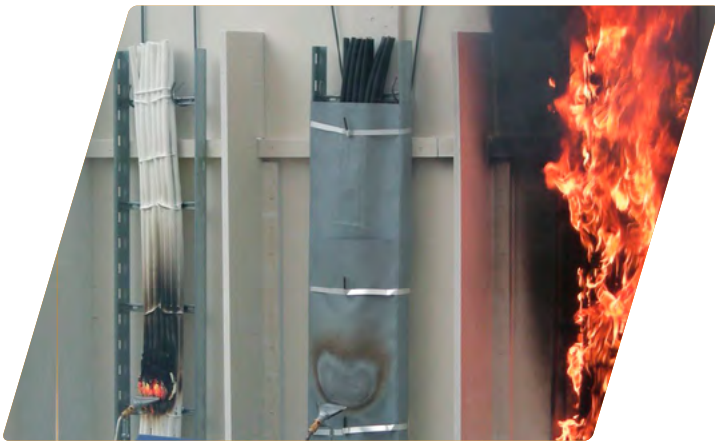
Likewise PYRO-SAFE® DG-CR 0.7 is particularly efficient when cables need to be frequently changed. Subsequent installations, removals or substitution of cables is made easy by simply opening the bandage. Special applications such as airless devices will not be necessary.

These and many other benefits make PYRO-SAFE® DG-CR 0.7 a highly useful application for many specific requirements and also a perfect alternative to conventional cable coating.

Fire Protection for Cable Systems

Overheating and short circuits may cause electrical cables to combust spontaneously. They can also catch fire due to external circumstances. Since cable sheathing and insulation is generally combustible, the fire may spread along the cables with enormous speed.

Combustion of plastic insulation causes flaming droplets and releases fire gases which in turn can lead to potentially fatal smoke inhalation injuries. Moreover these gases have a highly corrosive effect and can destroy technical equipment and other material. Efficient protection is necessary to keep damage to a minimum.



Comparison of fire damage to cable support systems (from left to right):

Coating PYRO-SAFE® FLAMMOTECT-A,
wrapping with PYRO-SAFE® DG-CR 0.7,
unprotected cables

PYRO-SAFE® DG-CR 0.7 is widely certified and approved for a large scope of applications in various countries and industries.



DNV·GL



Benefits at a Glance



Easy and clean application

- ✓ No need for time-consuming measures to protect the working environment
- ✓ No prior cleaning of cable systems required
- ✓ Only one workstep necessary – no need to observe drying times
- ✓ Simple application has a positive effect on installation quality and safety – no risk of a coating that might be too thin
- ✓ No need to measure film thickness
- ✓ No need for special equipment such as airless devices
- ✓ Subsequent installation, removal or change of cables made easy by simply opening the bandage

High resilience

- ✓ High resistance to weathering – suitable for indoor and outdoor use
- ✓ Resistance to moisture, freeze-thaw cycles, UV radiation as well as various oils and chemicals

High Quality Fire Protection Product – Made in Germany

- ✓ Solvent-free, halogen-free
- ✓ Free of asbestos, lead, mercury, hexavalent chromium and polybrominated biphenyl ether
- ✓ Does not release toxic fumes
- ✓ Non-hazardous material in acc. with the German Ordinance on Hazardous Substances (GefStoffV)
- ✓ Supervised by national and international accredited certification bodies



References

Tanjong Kiderong Power Plant Malaysia

Project: 400 MW combined cycle gas turbine plant
Product: PYRO-SAFE® DG-CR 0.7 cable bandage
Application: Strengthening of high and medium voltage cables
Standard: IEC 60332-3-22



Exchange 106 Tower, Kuala Lumpur Malaysia

Project: Construction of a skyscraper with 106 floors
Product: PYRO-SAFE® DG-CR 0.7 cable bandage
Application: Strengthening of high and medium voltage cables
as well as control cables
Standard: IEC 60332-3-22

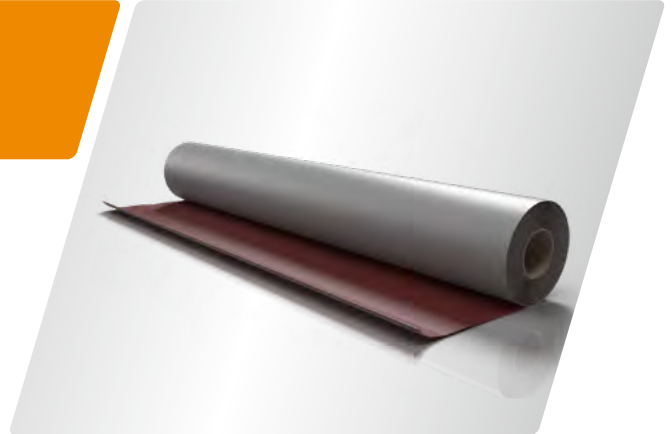


PYRO-SAFE® DG-CR 0.7

Product Data, Tests and Certificates

The intumescent material PYRO-SAFE® DG-CR 0.7 is based on expandable graphite. When exposed to reaction temperature (starting from 150 °C) it will expand with high pressure and substantially increase its volume. Additional components form an insulating layer, which will wrap itself tightly around the cables, seal the cross section of the support system and extinguish the fire.

Product data



Delivery and packaging






Product name	Item number	Form of delivery	Rolls / pallet	Net weight / pallet
PYRO-SAFE® DG-CR 0.7	01260201	20 m roll (22 m ²), width 110 cm	22 pcs.	572 kg
Metal strap	01234000	100 m roll, width 15 mm, thickness 0.2 mm	–	–
Locking clamp	01234100	1000 pcs. box	–	–

- Store indoors in a dry place.
- Horizontal rolls must be protected from pressure loads.
- Unlimited storage is possible as long as appropriate conditions are observed.

Basic physical and chemical properties

Colour	grey outside / red inside
Material	fabric coated on the inside with intumescent layer
Nominal thickness	0.7 mm
Weight per unit area	approx. 700–950 g/m ²
Reaction temperature	from approx. 150 °C
Expansion rate	15.5 to 22.0 times (tested on 2 mm thick samples at 550 °C for 30 min with superimposed load)
Expansion pressure	1.00 N/mm ² to 1.65 N/mm ²

Design Variants

	Wrapping for entire cable support structures		Wrapping for cables in support structures
	Wrapping for cable systems placed directly on solid components		Wrapping for cable systems fastened with clamps or on brackets
	Wrapping for freely suspended cable systems		

Fire Protection and Reaction to Fire

Reaction to fire	Class B-s1, d0	<ul style="list-style-type: none"> • in acc. with EN 13501-1
Flame spread	Cat. A: 2018 for 120 min.	<ul style="list-style-type: none"> • in acc. with IEC 60332-3-22 (DNV GL Certificate No. TAE00003BR)
	Cat. A: 2018 for 120 min.	<ul style="list-style-type: none"> • GOST IEC 60332-3-22
Maintenance of functional integrity	Tests up to 180 min. for various cable types and voltage ranges.	<ul style="list-style-type: none"> • in acc. with IEC 60331-21
FM Approval Class 3971 NEW!	FM Approvals – Certificate of Compliance Approval Identification: 3037058	
Smoke density	$D_s(4) = 12$, VOF4 = 31 min., $D_s(\max) = 18$	<ul style="list-style-type: none"> • in acc. with DIN EN ISO 5659-2
Smoke toxicity	CITG = 0.20 (Conventional Index of Toxicity) No HCl, HF, HBr or HCN emission	<ul style="list-style-type: none"> • EN 45545-2 Annex C and ISO 5659-2

Resistances

Ageing resistance	Ageing does not have an effect on the general properties of PYRO-SAFE® DG-CR 0.7	
	Artificial ageing without impairment Indoor/outdoor areas: extreme temperature changing from +71 °C to -40 °C, UV radiation and humidity	<ul style="list-style-type: none"> • in acc. with FM 3971 • in acc. with EOTA TR024
	Long-term ageing without impairment Indoor areas: the material was stored for 10 years in an indoor area without any resulting changes in its reaction to fire (MPA Braunschweig (notified body 0761), report no. 3224/821/11).	
Weather resistance	Use category X (product suitable for use in areas exposed to weathering).	<ul style="list-style-type: none"> • in acc. with EOTA TR024
Chemical resistance	Exposure to solvents (butyl acetate, butanol, white spirit and heating oil). Exposure to subsequently applied coatings (acrylic dispersions, alkyd resins, polyurethane acrylic and epoxy resins).	<ul style="list-style-type: none"> • in acc. with EOTA TR024

Installation Steps



Measure the cable support system and cut the bandage to fit support areas. Allow for the bandage overlapping by ≥ 50 mm in longitudinal and transverse directions.



Wrap the bandage strips with the coated side facing inwards around the support system in the supported areas and restrain them temporarily with duct tape.



Wrap the bandage around protruding cables.



Wrap the bandage around all other areas.



Secure the bandage with metal straps against slipping. Use at least two straps per bandage strip.

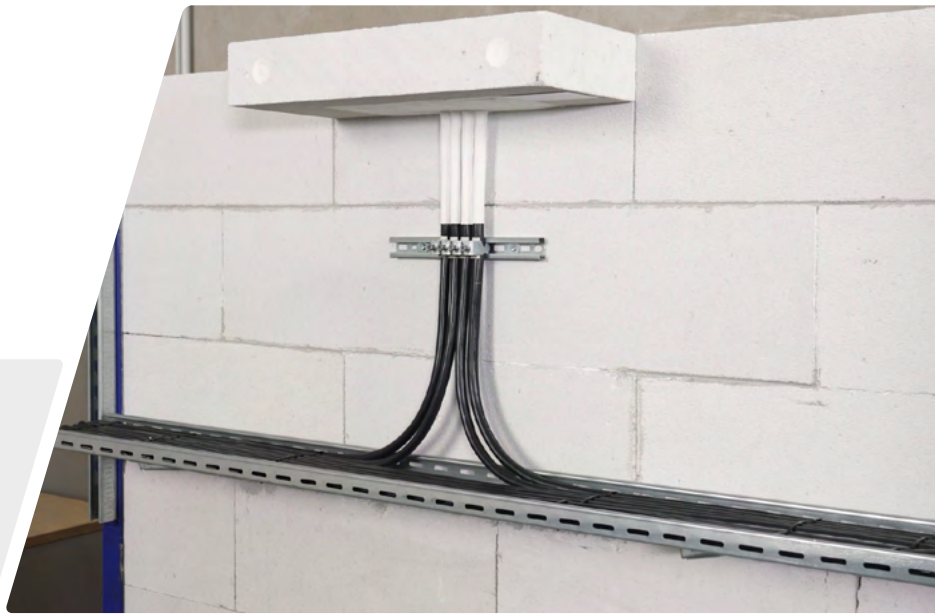


Clean the workplace and attach a label if required.

Installation Video



Watch the full **installation video** for PYRO-SAFE® DG-CR 0.7 and other fire protection systems.





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