AODISI

FIRE TECHNOLOGY

产品资料与销售咨询

PRODUCT DOCUMENTATION & SALES CONTACT

PYROCOL A, AV, E, MS & F - Technical Data Sheet-en

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以上为销售联系信息，不替代安全数据表中的应急联系电话。
原始技术内容及制造商、检测机构和证书签发信息见后续资料页。

Sales contact only; emergency contacts in safety data sheets remain applicable.
Original technical, manufacturer and certification details follow.

Technical Product Data Sheet

PYROCOL
A, AV, E, MS & F



kuhnodice

Tech. Rev.: 1.0
Ling. Rev.: 1.0

Product description

PYROCOL is a series of water-based adhesives that leave behind a non-flammable film once dried. The adhesives are slightly intumescent, which makes the glued elements more fire-resistant. The setting time for PYROCOL is shorter than conventional adhesives, so the glued elements can be handled sooner. PYROCOL is suitable for bonding materials such as mineral and glass wool, calcium silicate boards, gypsum plasterboard, steel and aluminium. The adhesives are designed for internal applications and can be set more quickly through hot pressing Following application, tools can simply be cleaned with water.

Reaction to fire

- Non-combustible

Properties

- Water-based, non-combustible adhesive
- Forms a slightly intumescent film for greater fire resistance
- Short curing time allows glued elements to be handled quickly
- Compatible with materials such as mineral wool, glass wool, calcium silicate boards and metals
- Suitable for internal applications, soluble when it contacts water
- Applicator tools can be cleaned with water

Fields of application

- Bonding fire-resistant doors and frames
- Mounting fire protection boards, including calcium silicate boards and gypsum plasterboards, on metal surfaces
- Bonding insulating materials such as mineral wool and glass wool for improved thermal insulation
- Attaching SUPERWOOL and ceramic fibres to a variety of substrates
- Used to seal and bond fireproof materials in passive fire protection systems
- Indoor use for fire protection constructions that require fireproof bonding

Features

Non-flammable, water-based, high-temperature adhesive cement that forms a slightly intumescent protective layer, both serving as a bonding agent and increasing the fire resistance of building elements.

Technical data

Composition	Sodium silicate, chemical binding agents
pH value	9 – 11.5
Calorific value Hs [Kj/kg]	0

	PYROCOL A	PYROCOL AV	PYROCOL E	PYROCOL MS	PYROCOL F
Consistency	Liquid			Paste	
Pyrometric cone [°C]	1100	1100	1100	1100	1350
Temperature stability [°C]	1000	1000	900	1000	1260
Bulk density [kg/m³]	1500	1400	1380	1650	1900
Viscosity (20 °C) [mPa·s]	14,000–15,000	8000–10 000	200–230	52,000–57,000	235,000–240,000

Storage	Store in a dry location at room temperature between +5 and 30 °C. Protect against UV radiation.
Shelf life	Max. 12 months from delivery date in original packaging and under the stated storage conditions

Chemical analysis (average values in %)

	PYROCOL A	PYROCOL AV	PYROCOL E	PYROCOL MS	PYROCOL F
SiO_2 (silicon dioxide)	64–70	65–70	26–30	59–62	78–80
Al_2O_3 (aluminium oxide)	–	–	–	23–26	14
Na_2O (sodium oxide)	15–17	15	8–9	–	–

Design variants

PYROCOL A	Adhesive for high-temperature applications, suitable for bonding materials such as polyurethane, mineral and glass wool, ceramic fibres, SUPERWOOL, calcium silicate boards and gypsum plasterboard to a variety of substrates, including steel and aluminium.
PYROCOL AV	Liquid version of PYROCOL A, which allows for more efficient automatic application. The same basic components and curing times as PYROCOL A.
PYROCOL E	Suitable for joining polyurethane, mineral and ceramic fibres, calcium silicate boards and plasterboard. Can be applied with brushes or applicator guns.
PYROCOL MS	Similar to a sealant, ideal for fire-resistant seals in passive fire protection systems.
PYROCOL F	High density and suitable for a maximum operating temperature of 1260 °C.

Colour variants

PYROCOL A, AV, MS, F: cream

PYROCOL E: transparent

Processing information

1. Surface preparation:
   - The surfaces of the materials to be bonded must be dry, clean and free from dust, grease or other residues.
   - Before application, stir the adhesive well to ensure a consistent solution.
2. Application and fixing:
   - Application methods: PYROCOL can be applied with a brush, spatula, applicator gun (in the case of AV) or roller, depending on the requirement or surface type.
   - Working time: The working time is heavily dependent on the temperature and humidity; higher temperatures and dry air shorten the working time.
   - Joining the materials: The bonding surfaces should be joined immediately after applying the adhesive and held together with pressure to ensure a strong connection.
3. Curing:
   - Air drying: The adhesives dry at room temperature. For a faster curing time, the bond can be hot pressed at temperatures of up to 80–90 °C, which reduces the curing time significantly.
   - Water solubility: The adhesives are not resistant to water; they are therefore intended for indoor applications.
4. Safety notes:
   - Safety measures: PYROCOL irritates the eyes. It is therefore recommended to wear safety glasses. The work area should be well ventilated and we recommend wearing a dust mask when working with large quantities of the adhesive.

Delivery forms

Packaging type	Content	Special notes
Pail	12.5 kg or 22.5 kg	Standard delivery form
Large container	1400 kg	For large-area applications
Pail (on request)	5 kg	For smaller applications
Cans with applicator nozzle	1.5 kg	For precise application
Cartridges	310 cc	Packed in boxes of 25 units

Note

LXH HARDENER is a hardener that has been developed specially for use with PYROCOL adhesives,
to enable chemical curing under cold conditions or in environments with no air circulation.
It accelerates the curing process of adhesives and shortens their drying time.

Recommended dosage: LXH hardener should be added in quantities of 1–6% of the weight of the PYROCOL adhesive used.

Health and safety measures

- Potentially irritant: PYROCOL may irritate the eyes. It is therefore recommended to wear safety glasses.
- Occupational health and safety: Follow the usual health and safety rules for the workplace.
- More information: You can find more detailed information in the safety data sheet.