

Material Safety Data Sheet

acc. to 2001/58/EC



Rigid PVC-films: **K, L, M, N or R, types 201 to 298 or 403 to 480**
(except K203, M204, K205, M222, M223)

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made / revised: 11 / 21.11.2006

1. Substance / Preparation and Company Identification

Trade mark: Rigid PVC-films

K, L, M, N or R, types 201 to 298 or 403 to 480
(except K203, M204, K205, M222, M223)

Company: KLÖCKNER PENTAPLAST GmbH & Co. KG
Industriepark Werk Gendorf
D – 84504 Burgkirchen
GERMANY

information about material/preparation: Tel.: +49 / (0)8679 7 2222 (for emergency use also)

2. Composition / Information on Ingredients

Chemical Description

Composition of Polyvinylchloride acc. to DIN ISO 7728: PVC-U

Dangerous components

none

3. Hazard Identification

not applicable

4. Emergency and First Aid Procedures

(only necessary when handled without care)

Inhalation: If PVC decomposes due to overheating or in contact with fire: Remove affected persons to fresh air. In case of irritation of respiratory system or if feeling unwell after prolonged exposure, get medical attention.

Skin contact: If contact with hot (melt) product occur: Wash with plenty of water, treat as for thermal burn.

Eye contact: After contact with hot (melt) product: Immediately flush eyes with water for several minutes at least, get medical attention.

Ingestion: To avoid mechanical irritation, get medical advice.

Advices for the doctor: After inhalation of decomposed products: Symptomatic treatment (decontamination, vital functions), if necessary action against irritations of the mucous membranes by HCl.

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5. Fire-Fighting Procedures

Suitable extinguishing media: Water spray, Powder, Carbon dioxide

PVC-U does not burn without a slave flame (self-extinguishing).

Unsuitable extinguishing media:	none
Burning may release:	Carbon dioxide (CO ₂) Water vapour (H ₂ O) Hydrochloric gas (HCl)

If the burning material cannot get enough air, release of carbon monoxide, soot and other gases and vapours is possible.

Special protective equipment:	If necessary, use air-bottled or air-circulating apparatus for fire-fighters.
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Further information:	Observe local regulations when contaminated water and burning waste are removed.
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6. Spill or Leak Procedures

Personal Precautions:	not applicable
Environmental Precautions:	not applicable
Methods of Cleaning:	Pick up by mechanical means for disposal or reuse.

7. Handling and Storage Precautions

Handling

Avoid overheating the material, it decomposes to gaseous components (see also 5.). Thermal degradation does not occur at low temperatures, but becomes faster at higher temperatures.

Decomposition:	> 150 °C at long term contact > 250 °C at short term contact (e.g. warm forming)
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It is advisable to install local exhaust ventilation in the vicinity of processing machines in all areas where melt or high temperature processing is carried out (Germany: observe TRGS 402)

Fire and explosion protection

Take precautionary measures against static discharge, e.g. by using proper grounding techniques, when handling rolls or sheets in dry rooms (esp. to avoid damage to personnel!).
Acc. to VDI 2263, page 1, par. 2.1.2.3 (dd. May 1990) PVC is not dust explosive as delivered by KLÖCKNER PENTAPLAST GmbH.

Storage:

Take precautionary measures to avoid fire hazard. Store in normal room conditions, without direct exposure to sunlight.

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8. Exposure Control / Personal Protection

Additional advices tips for design of machines:
see item 7

Components with limits to be observed (depending on work station)

PVC is recognized as safe. However, it may contain trace amounts of
Vinyl chloride monomer VCM CAS-Nr. 75-01-4 EINECS-Nr. 2008310

MAK-Value: (Germany, as TRK-Value acc. to TRGS 102): 2 ppm (5 mg/m³)

For PENTA-films a VCM value lower than 0,5 ppm is guaranteed

Given the special precautions mentioned under 7. HANDLING, these traces present no toxic risk to the processing personnel.

Protection

Gloves should be worn when handling hot material. Safety lasses are normally recommended for all industrial workplaces, e.g. when handling melts material.

9. Physical and Chemical Properties

Form:	mono films
Colour:	from clear to black, as required
Smell:	odourless under normal conditions, melt material has a specific odour known as „plastic“.
Change of state:	Softening temperature 60 ... 90°C (DIN EN ISO 306): Glass transition temperature: approx. 80 °C Ignition temperature: see point 7 Density (DIN 53479): 1,25...1,45 g/cm ³
Solubility PVC:	soluble in: e.g. tetrahydrofurane and cyclohexanone partly soluble in: different aromatic hydrocarbons not soluble in: water, diluted acids and bases
Fire supporting properties:	none PVC products are also <u>not easily combustible</u> without fire protecting equipment.

10. Stability and Reactivity

Conditions to avoid

Thermal degradation by overheating (see point 7.).

