

Safe Handling of Diafoil® Polyester Films

For all Diafoil® types except the K900, L400 and L900 series and our European customers.

Status under REACH

Not classified as hazardous. REACH (Regulation 1907/2006) does not require an EU safety data sheet or other communication in the supply chain concerning substances of very high concern (SVHC list of 14 June 2023). As Diafoil® is an “article” under REACH, rather than a “substance” or “mixture”, this document is not a “safety data sheet” as defined in the regulation.

Main chemical component

Poly(ethylene terephthalate), “PET”
CAS # 25038-59-9

Physical-chemical data

(general information, see technical data sheets or specification for data on individual Diafoil® types)

The odourless film is chemically stable and resistant to attack by oils, solvents, weak acids and weak alkalis. The film melts in the range of 250°-265° C and decomposes above 300° C. In the melt and especially upon decomposition, acetaldehyde (CAS # 75-07-0) may form.

The density is the range of 1.3 – 1.6 g/cm³, depending on product. The appearance (colour, transparency) varies according to film type.

Physical hazards

Heavy gauges of polyester film can contain sharp edges. Proper protective gear, such as gloves, is recommended.

Polyester film can create a slip hazard. Walking areas should be kept clear of the film and scrap.

Unwinding, winding and passage of polyethylene terephthalate film through and over rollers will tend to generate a strong electrostatic charge on the web. Static discharge devices should be properly positioned at such points to eliminate the charge and to prevent uncontrolled discharge from the web. This is particularly important to protect personnel from the effect of a static discharge and to prevent sparks in potentially explosive atmospheres.

Large reels of film can pose hazards due to their weight. Handling, storage and transport equipment must be designed to carry the weight and prevent the film reels from rolling.

When the film is machined, milled or ground, dust can be formed, particularly in the case of heavily pigmented opaque film types. Such operations

should be monitored and respirable dust and particulate exposure maintained below established exposure limits.

Health hazard data

No adverse health effects have been attributed to polyester film.

In case of fire

The film will burn if exposed to flame. Fire fighters should protect themselves from combustion and decomposition products that may include carbon monoxide, acetaldehyde and other toxic gases. Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to products of combustion exists. Fire fighting extinguishing media include carbon dioxide, water spray, foam or dry chemical.

Dealing with molten film

If the film could be subjected to conditions releasing acetaldehyde, then adequate ventilation should be used to stay below the exposure limit.

Skin contact with molten film causes burns (due to the heat). Appropriate clothing and heat resistant gloves can be used as protection. If contact occurs accidentally, cool quickly with cold water and have the burn treated by a physician.

Disposal and shipping Information

Polyester film is not classified as a hazardous waste under Directive 2008/98/EC. It can be disposed of or incinerated with normal household waste, after consultation with site operator and local authorities. However, locally applicable regulations must be followed.

Mechanical recycling would be possible, provided a suitable collection scheme etc. were set up.

Polyester film is not classified as hazardous material for the purposes of transport by road, inland waterway, sea, air or mail.

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