MACmark

MACtac
A Bemis Company

MACphospho 85

Provisional Technical Data Sheet

PRODUCT DESCRIPTION

MACphospho 85 is a high intensity phosphorescent vinyl film which complies with the requirements for safety signs when tested to DIN 67510 Part 1.
Highly visible to the human eye in the dark after exposure to natural or artificial light.

CONSTRUCTION

Face material :
450 µm phosphorescent yellow-green vinyl film, not radioactive, cadmium-free.

Adhesive :
Permanent acrylic based pressure-sensitive adhesive.

Liner :
Highly stable 160 gsm white PE coated paper.

TYPICAL USES

After exposure to sun light or artificial light, MACphospho 85 will glow in darkness conditions. The intensity of the glow diminishes with time and is strongest during the initial half hour, but in any event is still visible after 12 hours to a naked eye that has become accustomed to the darkness.

MACphospho 85 is used for emergency evacuation, general safety and caution warning.

MACphospho 85 is ideal for signs and escape routes, for marking exits, directions,… and is used in public buildings, tunnels, military shelters, ships, safety boats, etc.

DURABILITY

5 years (indoor use).
In outdoor use, the life expectancy is reduced and is dependent on exposure conditions.

Note : Exposure to severe temperatures and ultraviolet light, as well as conditions in southern European countries, and also in tropical, sub-tropical or desert regions, will cause a more rapid deterioration. This also applies to polluted areas, high altitude, horizontal and south-facing exposure.

SHELF LIFE

2 years when stored at 15 to 25°C and ± 50 % relative humidity. A longer period storage is not recommended.

PHYSICAL PROPERTIES (Typical values)

Thickness (Film + adhesive) ASTM D-645
0.500 mm

Face Material Data, 23°C DIN 53455-5
Tensile strength : > 100 N/15mm
Elongation at break : ≥ 100 %

Adhesive Data, 23°C FTM 1
Peel adhesion 180° on stainless steel
- 20 min. residence : 16 N/25 mm
- 24 hour residence : 23 N/25 mm

Dimensional stability FTM 14
Shrinkage (48 hours at 70°C) : < 2.5 %
(25 cm x 25 cm, sample mounted on aluminium).

Temperature ranges :
Application : + 10°C to + 40°C
End-use : - 30°C to + 70°C

Flammability ISO 3795
Sample mounted on aluminium : self-extinguishing.

Luminance (glow duration) DIN 67510
- after 10 min. : 100 mcd/sqm
- after 60 min. : 13 mcd/sqm
When film initially charged at 1000 lux for 5 minutes

Radioactivity Gamma spectrometer
No artificial radioactivity.

Weight (Film + adhesive)
625 gr/sqm

PROCESSING

MACphospho 85 is usually printed by the silk screen process.

NB: The ink anchorage on MACphospho 85 is more difficult to achieve. The printer should test the ink anchorage before starting the production and contact his ink supplier if necessary.

IMPORTANT NOTICE
All MACtac products are subject to careful quality control throughout the manufacturing process and are warranted to be of merchantable quality and free from manufacturing defects.
Published information concerning MACtac products is based upon research which the Company believes to be reliable although such information does not constitute a warranty.
Because of the variety of uses of MACtac products and the continuing development of new applications, the purchaser should carefully consider the suitability and performance of the product for each intended use, and the purchaser shall assume all risks regarding such use. The seller shall not be liable for damages in excess of the purchase price of the product nor for incidental or consequential damages.
All specifications are subject to change without prior notice.