

# MAP ATOX K

Protection of Kapton from atomic oxygen



## Coating characteristics

Polymer matrix	➤ Silicone
Solar absorptance	➤ $\alpha_{2\pi s} = 0.36 \pm 0.02$
IR Emittance	➤ $\epsilon_{N,IR} = 0.80 \pm 0.03$
Outgassing	➤ in compliance with ESA standard: ECSS-Q-70-02A
Electrical surface resistance	➤ $R_s \geq 1.10^9 \Omega/\square$
Standard thickness	➤ 5 $\mu\text{m}$ to 10 $\mu\text{m}$
Average mass applied	➤ 1 g dry / m <sup>2</sup> per dry $\mu\text{m}$

MAP supply MAP ATOX K applied either on one side aluminium kapton sheet or on raw kapton sheet  
 Maximum dimensions: 900 x 900 mm

## Definition

Elastomeric varnish that protects Kapton from atomic oxygen.

Aspect: transparent

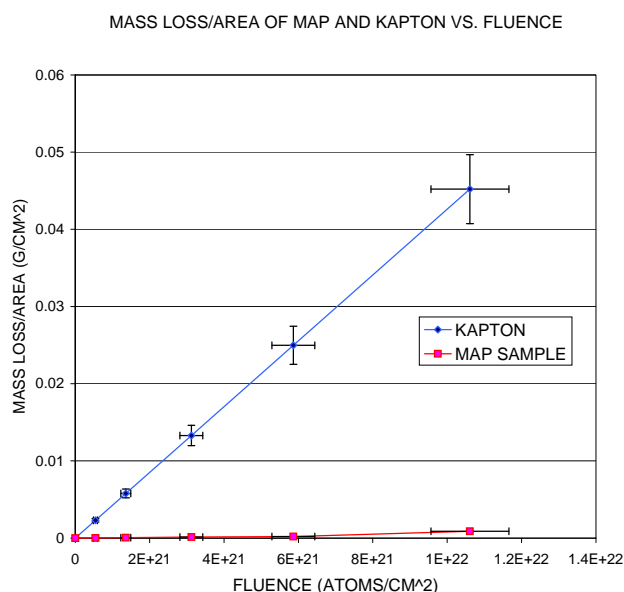
AFNOR NFT 36005 classification: Family I Class 10c

Purpose: in low orbit (LEO), protection of the external side of MLI (Multi Layer Insulation) from the erosion caused by atomic oxygen, thus reducing the spreading of debris and contaminating products in space.

## Properties

Test carried out	CNES qualification report
Resistance to space environment	DTS/AE/MTE/TH/01-037 DTS/AE/MTE/TH/03-094

## Test NASA Glenn Research Center: Exposure to ATOX



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