TECHNOLOGY TRANSFER

Interest Exploratory Note

Matrix Resin for Composite Application EPY PEEKTOH

Indian Space Research Organization at its Vikram Sarabhai Space Centre (VSSC) has developed EPY PEEKTOH resin which is an elevated temperature curing high performance epoxy resin matrix suitable for composite applications. The specialty of the formulation is good mechanical properties, high glass transition temperature and low outgassing properties. This is an ideal matrix resin for processing thick carbon fabric laminates (≥ 30 mm) without any micro cracks and delamination.

Salient Features

- Elevated temperature curing
- Very good mechanical properties
- High glass transition temperature
- Low outgassing properties
- Suitable viscosity at 60-70°C for processing two dimensional fabric laminates

Applications

EPY PEEKTOH resin is mainly used for fabrication of composite YOKE panel hinge insert for satellites.

Properties

Volatile matter at 65°C for 5 hours	:	0.04
maximum Viscosity at 65°C (poise)	:	60-80
Shore D hardness at 30°C	:	> 85
Specific gravityat 30°C	:	1.1 –1.4
Flexural strength at 25°C(MPa)	:	110 –120
TML-WVR (%)	:	≤ 1.0
CVCM (%)	:	≤ 0.1
Glass transition temperature (°C)	:	210

Department of Space has authorised NSIL for Technology Transfer of Matrix resin for composite application EPY PEEKTOH to suitable entrepreneurs/ Industry in India. Interested Parties may please fill the enclosed form and send by email to contact-nsil@isro.gov.in