

PHTHALONITRILE PREPREG – AZKLM0402

TECHNICAL DATA SHEET

AZKLM0402 is a high performance and high temperature prepreg suitable for mass manufacturing of high temperature structures for aerospace and defence industry. The prepreg is highly customizable as per the engineering needs of the customers. The process friendly PN prepreg is highly versatile and can be processed efficiently using various methods such as autoclave, vacuum bagging and compression moulding.

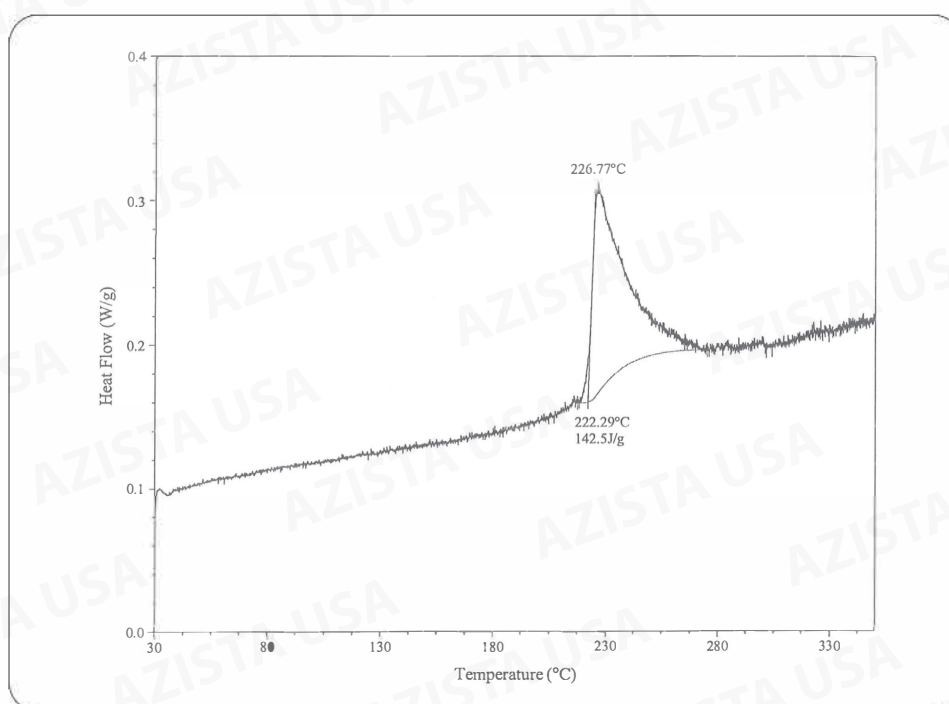
Features:

- Solvent free, hot melt prepregs
- Ease of processing
- Enhanced thermal resistance
- Operational stability at elevated temperatures
- Medium tack and drape characteristics

Applications:

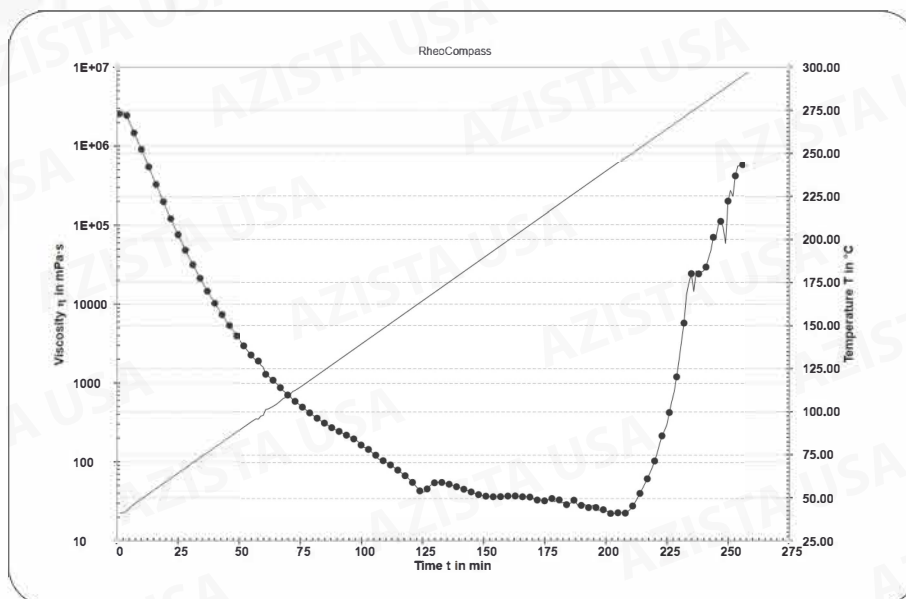
- Near engine components
- Thermal protection systems
- High temperature leading edges
- Maritime structures

DSC (UNCURED)



Uncured resin, Ramp 1°C (1.8°F)/min to 350°C (662°F)

RHEOLOGY CURVE



Mechanical Properties

(C-Epoxy Laminate – T-300, 3K 8H Satin Weave Carbon BD Fabric) [Hand-layup]

Properties	Units	Values	Test Method
Tensile Strength	MPa	647	ASTM D3039
Flexural Strength	MPa	911	ASTM D790
ILSS	MPa	56	ASTM D2344

OPTIMISED PROCESS PARAMETERS FOR PHTHALONITRILE COMPOSITES (VACUUM BAGGING WITH NON-PORUS PEEL PLY)

► OPTIMISED CURE CYCLE

Initial cure (in Vacuum bag)

1 hr hold at 100°C (212°F), ramp rate 3°C/min
4 hr hold at 200°C (392°F), ramp rate 1°C/min

Additional post-cure (Free stand)

1 hr hold at 200°C (392°F), ramp rate 3°C/min
2 hr hold at 250°C (482°F), ramp rate 1°C/min
4 hr hold at 300°C (572°F), ramp rate 1°C/min

Ramping and Cooling at 1°C/min

- » Storage condition: Recommended to store at -18°C.
- » Out life: up to 45 days at 22°C.
- » Shelf life: 12 months at -18°C.



AZISTA COMPOSITES PRIVATE LIMITED

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