



Shape-memory polymers (SMPs) and their composites are an emerging class of functional

materials capable of sensing stimuli from changes in external environment and responding to

such changes by recovering to a predetermined state. They are widely used in aerospace,



Highlights

have been studied.

- ➤ A series of SMEPs with narrow Tg range (14-23°C).
- > Added ETBN formed a sea-island structure
- Combining two-stage curing technology



Result and Discussion

> Dynamic mechanical analysis





> Mechanical performance



Shape memory performance



Construction of homogeneous chain segments, π - π strong

cross-linked network





- \triangleright A series of SMEPs and their composites with narrow Tg range (14-23°C).
- > The added ETBN formed a sea-island structure, which increased the elongation at break by 4 times.
- > Combining two-stage curing technology, the Tg, modulus and strength of the system were improved.

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