TERVES
ENGINEERED RESPONSE

EXALON™

PRODUCT DESCRIPTION: STRUCTURAL EXPANDABLE

Exalon™ is a patent-pending structural polymer technology that can be expanded in-situ through exposure to aqueous solutions. In previous work, Terves has demonstrated expansion of up to 40 volume percent at temperature ranging from ambient up to 200°C with compression strength over 40ksi.

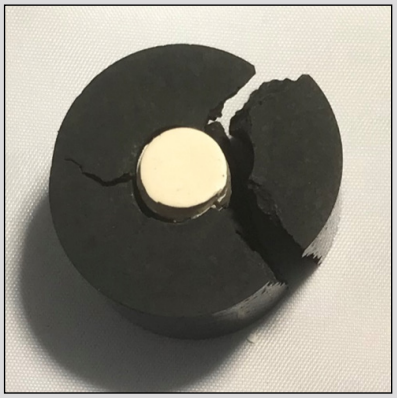
Exalon™ can be molded or machined to the desired size and is available with a range of mechanical properties that can be tailored to the desired application (wellbore fluids and temperature). Expansion can be triggered or delayed using microstructural control or coatings to enable the part to expand only when it is needed.

PRODUCT APPLICATIONS

- Expandable centralizers
- Gravel pack screens or additives
- High temperature structural packers
- Diverters (granulated or molded shapes)
- Hydraulic actuation of tools and valves without the need for intervention
- Expandable proppant or gravel pack material (XOProp™ expandable proppant has shown the ability to counter far field fracture closure-improving estimated recovery)

PRODUCT ADVANTAGES

- Tailorable expansion up to 50v%
- Controlled expansion rates for a variety of applications and well conditions
- Moldable, castable and machinable to cover a wide variety of components for numerous applications
- Exalon can be paired with Response™ coatings to delay expansion until triggered by an event (time, temperature, etc...)



Exalon sample encased in epoxy. Exalon exerts enough radial force to fully fracture the epoxy

Exalon can be molded into custom shapes to meet specific needs.

DISCLAIMER: The information provided in this document is intended to assist manufacturers and specifiers in the selection and use of Terves' products. All data noted should be understood to be average and expected performance, and is provided to serve as a general guideline only. This information **does not represent and is not to serve as minimum specification standards.** For further information contact Terves directly. All Terves commercially available products have patents or patents pending in the United States and in a variety of countries. For the latest patent information on this specific product contact Terves directly.

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