DISSOLVANITE®

FLEXES UNDER PRESSURE TO DELIVER A RELIABLE SEAL

DISSOLVANITE® - A true elastomer that deforms under pressure, creates a reliable seal, and integrates seamlessly with conventional setting tool technology.

DISSOLVANITE® by Rubberatkins is a range of oil-resistant dissolvable elastomer materials engineered to degrade over time when exposed to water and aqueous-based brines. The material is designed for temporary sealing applications where reliable sealing performance is required for a defined period before controlled dissolution occurs without mechanical intervention.

Developed primarily for downhole oil and gas applications, DISSOLVANITE® combines pressure resistance, chemical compatibility, and predictable dissolution performance.

FEATURES

- Predictable and controllable dissolution rates
- Dissolves when exposed to water or water-based brines
- Maintains integrity in oil-based environments
- High-pressure capability up to 10,000 psi differential pressure
- Good retention of physical properties at elevated temperatures
- Degrades into fine powder, minimising debris
- Custom formulations available for application-specific performance
- Can be moulded or machined into custom geometries

Conventional Elastomers	DISSOLVANITE®
Requires retrieval or intervention	Self-dissolving
May leave large debris	Degrades into fine powder
Fixed material properties	Tailorable dissolution profile
Limited temporary-use optimization	Designed for temporary sealing

TYPICAL APPLICATIONS

- Temporary downhole sealing systems
- Dissolvable packer elements
- Cementing darts, wipers and cups
- O-rings and profiled seals
- Ball seats
- Custom dissolvable components

RUBBERATKINS
experience elastomer excellence

ABERDEEN
t +44 (0)1224 246 777

CHINA
t +86 135 1076 6825

HOUSTON
t +1 281 719 5116

WEB
www.rubberatkins.com

CALGARY
t +1 403 984 4900

EMAIL
sales@rubberatkins.com

DISSOLVANITE®

Material Type	**Dissolvable Elastomer**
Oil Resistance	Excellent
Water Exposure Response	Controlled degradation
Dissolution Medium	Water and aqueous brines
Differential Pressure Rating	Up to 10,000 psi
Temperature Rating	Up to 121 °C (250 °F)
Dissolution Byproduct	Fine powder
Manufacturing Options	Moulded or machined
Customization	Application-specific

DISSOLUTION PERFORMANCE

Dissolution rate depends on several operational parameters:

- Temperature
- Brine concentration
- Fluid chemistry
- Component geometry and thickness
- Exposure duration
- Typical low-temperature formulations can achieve significant dissolution within approximately 5 days at 60 °C (140 °F) in 3% brine environments.

TYPICAL CHARACTERISTICS

- Eliminates the need for mechanical retrieval
- Reduces intervention costs
- Minimises risk of obstruction from large debris
- Accelerates well completion and production timelines
- Supports lower-temperature well operations