



GENERAL PRODUCT SHEET

FREECAP® IV – Fluid Reactive Expanding Elastomer Casing Annulus Packer

PRODUCT DESCRIPTION:

The FREECAP® is a packer that swells upon contact with wellbore fluids. Different elastomers are available that will expand in water-based, oil-based, or hybrid fluids. There are several basic configurations of FREECAP currently available.

The FREECAP IV is a slide-on version made for low-pressure applications, which allows on-site placement on either blank pipe or at the end of the screen section. The packers have seal lengths of 1 ft, 3 ft, and 5 ft (0.3 m, 0.9 m, and 1.5m), but can have custom lengths. The packer slides directly over max API casing OD tolerances. Each metal end ring bonds to the swellable elastomer, and set screws anchor the end rings to the base pipe. This increases the differential pressure rating by reducing the extrusion gap between the packer and the borehole/casing ID.

The length of time required to swell and seal off a particular annulus is dependent on several factors. Factors common to both the oil and water swell compounds are fluid temperature and the difference between the initial packer OD and the average borehole ID. For the oil-activated packers, oil composition is the controlling factor. For the water swellable packers, water salinity is the controlling factor.

Each swellable elastomer compound developed by TAM is custom designed and tested to meet customer needs. FREECAPs are highly reliable, have no moving parts, and require no inflation or manipulation to seal, removing the inherent risks of mechanical tools.

PROVIDES SOLUTIONS FOR:

- Zonal isolation
- Flow diversion
- Debris barrier
- Open and cased hole scab liners
- Cement integrity

FEATURES:

- Anti-extrusion end rings
- Modular slide-on allows for last-minute placement flexibility
- Provides effective sealing in irregular wellbore shapes or corroded casing
- Can have both water, oil, and hybrid swell elastomers to ensure swelling in either environment

BENEFITS:

- Temperature ratings from 50°F to 300°F (10°C to 149°C)
- Reduces rig time and construction costs



FREECAP IV