BAKER HUGHES
a GE company

SPECTRE disintegrating frac plug

Flow sooner with full disintegration after fracturing

The **SPECTRE™ disintegrating frac plug** is the industry's first fully disintegrating plug, enabling customers to skip the costly and time-consuming process of post-frac plug millout. The plug reliably withstands the rigors of fracturing, and the entire plug—including the body, specially engineered slip system, and packing element—fully disintegrates downhole in the presence of wellbore fluid.

While many "disintegrating" frac plugs offer the promise of being interventionless, most do require post-frac intervention. This is because they contain hard, heavy components like cast iron slips and ceramic buttons that remain in the well, necessitating prolonged and costly cleanout operations. In addition, some plugs disintegrate too fast, compromising fracturing operations. Others disintegrate too slow—or not at all—blocking production.

Built completely out of patented controlled electrolytic metallic (CEM) material, the SPECTRE disintegrating frac plug is the only one on the market that disintegrates fully after fracturing, eliminating unexpected milling costs and/or extra cleanup costs associated with non-disintegrating plug components. The recent introduction of the **SPECTRE™ low-temperature (LT) disintegrating frac plug** extends the reliable disintegration envelope to temperatures as low as 100°F (37°C)—the lowest in the industry.

Full plug disintegration in a range of temperatures

With no cast iron or ceramic components, the SPECTRE plug leaves no debris behind, ensuring a clean wellbore and accelerating production startup. Available in a range of CEM chemistries, the plug provides optimal disintegration rates in wells with bottom hole temperatures (BHT) as high as 330°F (166°C) and as low as 100°F. This extended range allows customers to use the SPECTRE plug in cooler areas like the Permian basin, where disintegrating plugs have not been

Applications

- Unconventional oil and gas wells
- Plug-and-perf completions
- Extended-reach laterals
- Developments in remote locations
- Wells with low bottomhole temperatures and pressures

Benefits

- Contains no cast iron or ceramic parts
- Disintegrates fully and predictably
- Eliminates post-frac intervention
- Leaves behind no debris
- Accelerates completion times

a viable option in the past. To ensure the plugs disintegrate at the desired rate, a rate of corrosion test is performed prior to each job to determine the right CEM chemistry for the well.

Although the plugs disintegrate at reliable rates, they also can be milled out exceptionally fast due to the unique alloy structure of the CEM material.

Reliable run-in and sealing

With an impact-resistant design, that transfers forces through the toolstring instead of through the slips, the SPECTRE plug is virtually preset-proof, enabling extremely fast run-in rates. Once at depth, the SPECTRE plug's proven friction-based slips keep it firmly anchored in the casing at pressures up to 10,000 psi (689 bar), creating a dependable seal to divert treatments into the formation.

Contact your local representative today to learn more about how SPECTRE plugs deliver reliable sealing and full disintegration after fracturing.

SPECTRE frac plug specifications						
Casing size (in.)	5.5	5.5	5.0	5.0	4.5	4.5
Casing weight (lbs)	20-23	26-26.8	18-21.4	21.4-23.2	11.6-13.5	13.5-15.1
Plug size	438	410	396	368LS	368	360
Pressure rating (psi)	10,000	10,000	10,000	10,000	10,000	10,000
Material	IN-Tallic	IN-Tallic	IN-Tallic	IN-Tallic	IN-Tallic	IN-Tallic
BHT range	100-330°F	100-330°F	100-330°F	100-330°F	100-330°F	100-330°F

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