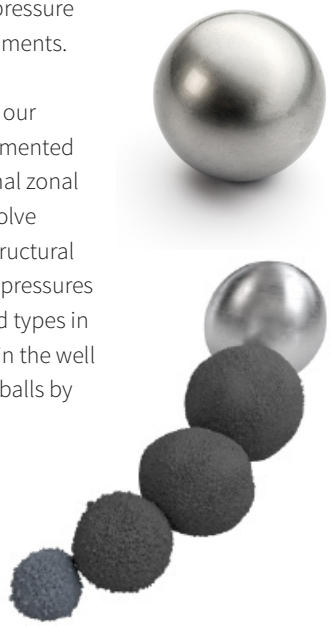
Tool Specification

d-Solve™ Dissolvable Balls

Our d-Solve™ dissolvable ball products use proprietary metallic and non-metallic dissolvable materials to allow for interventionless operations across a wide range of applications. The dissolvable materials used in d-Solve balls have been qualified through extensive internal testing including dissolving rates and diferential pressure capabilities in a wide variety of downhole environments.

Ideal for use with our i-Frac sliding sleeve system, our d-Solve balls can be used in both open hole or cemented applications, allowing operators to achieve optimal zonal isolation and interventionless packer setting. d-Solve dissolvable balls are custom designed to retain structural integrity under high temperatures and diferential pressures for a specific range of time, depending on the fluid types in the wellbore. The d-Solve balls will then dissolve in the well fluids, eliminating the need to mill or retrieve the balls by flowing back the well.



Applications

- Activation of frac sleeves in multi-stage stimulation
- Interventionless setting of packers
- Temporary isolation during workovers
- Casing pressure testing
- Internal isolation of zones during fracturing or acidizing

Features

- Custom manufactured to specific size requirements
- Predictable response when exposed to various well fluids
- Maintains sealing capability in a wide range of temperatures

Benefits

- Eliminates need for setting and retrieving plugs to set packers
- Eliminates requirement to flow back or mill balls in multi-stage stimulation applications
- Degrades predictably over time while in contact with fluid and temperature
- Requires no mill out/drill out afer fracturing operations
- Requires no chemicals or acids
- High compressive strength capabilities
- Strict tolerances held on ball diameter (OD)
- In-house testing of specific well fluids and conditions

Technical Data

Size in. (mm)	Specific Gravity	Minimum BHST for Dissolution	Minimum Salinity Requirements	Typical Dissolution Rates	Material
1.0 - 4.5 (25.4 - 114.3)	2.7 - 2.9	150°F (65°C)	0.5%	0.083 g/min	NOV Proprietary Alloy

NOTE: Dissolution rate based on 2.25-in. (57.2-mm) ball, in 1% KCl at 194°F (90°C). Additional application testing can be perfmored as required.