

BLEND DESCRIPTION & APPLICATION

SanSeal is a microblend cement which is ideal for surface casing vent flow and gas migration repairs. Production casing corrosion, leaking casing collars, or any similar problem can also be repaired utilizing this blend. SanSeal is successful due to the controlled particle size distribution that aids in controlling viscosity and flow properties, enabling the slurry to penetrate into very small channels in the formation.

FEATURES & BENEFITS

- Particle size: 90% of the cement particles are smaller than 15 microns
- Low viscosity (approximately 35 cP)
- Shorter thickening time than Class G cement, allowing for pumping operations to be conducted in a timely manner
- Density can be changed to manipulate slurry properties for specific applications
- Typically batch-mixed to ensure accurate density and consistent slurry properties

| Physical Properties | |
|---------------------|------------------------|
| Density | 1650 kg/m ³ |
| Water Requirement | 0.70 m ³ /T |
| Yield | 1.03 m ³ /T |
| Bulk Density | 1.011 T/m ³ |

| Typical Data | | SanSeal + Typical Additives | | | | | |
|--------------|-----------|-----------------------------|----------------|----------------------------|--------|--------|--------|
| BHCT (°C) | BHST (°C) | Thickening Time (hr:min) | Viscosity (cP) | Compressive Strength (MPa) | | | |
| | | | | 8 hrs | 16 hrs | 24 hrs | 48 hrs |
| 20 | 20 | 3:15 | 20 | 0.5 | 1.5 | 4.0 | 7.0 |
| 25 | 25 | 2:40 | 15 | 0.5 | 2.5 | 6.5 | 9.0 |
| 30 | 30 | 2:20 | 13 | 1.5 | 4.0 | 8.0 | 13.0 |

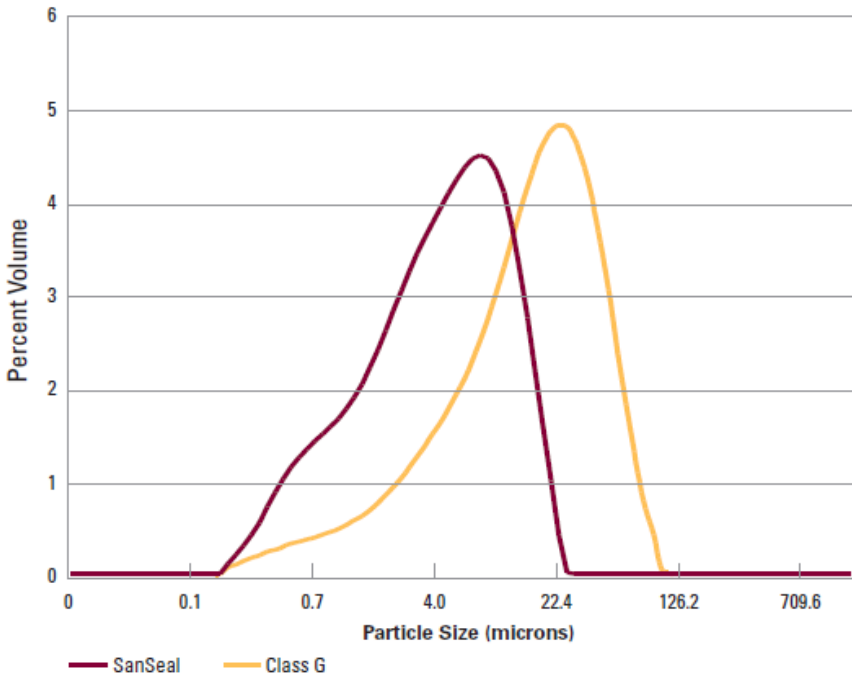


Figure 1 shows how, on average, SanSeal cement particles are much finer than typical Class G particles. Consequently, SanSeal has greater surface area; this consolidates the cement matrix, giving it more strength and allowing it to penetrate tighter formations.

Figure 1: A graphic representation of particle size distribution comparing SanSeal to Class G cement

SAFETY & HANDLING

Cement is alkaline and abrasive; avoid contact with eyes and skin. Gloves, goggles, and respirator should be used when handling cement. Refer to MSDS for detailed handling instructions.

