ABRAJ

AbraLITE

Engineered lightweight cement blend system

High solids. Low density.
Stronger cement barriers.

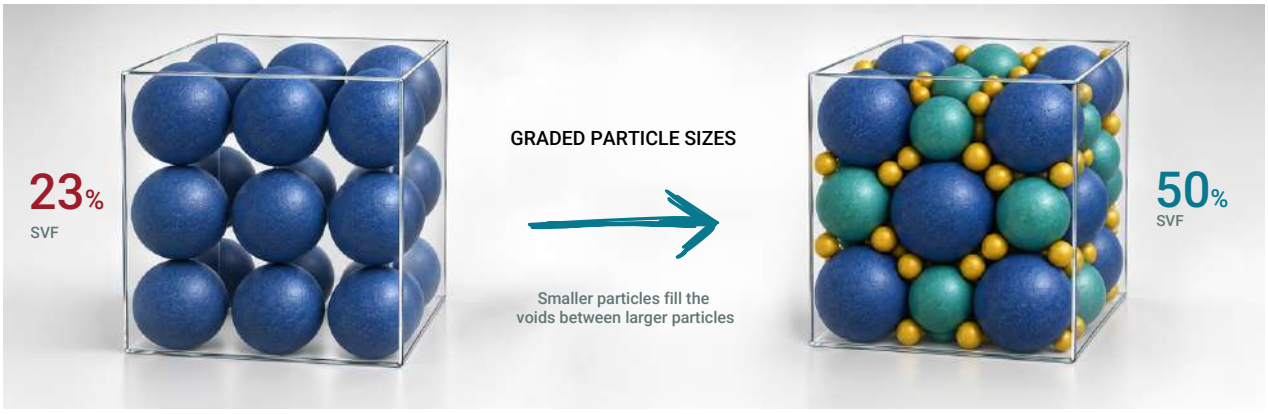
OPTIMIZED PARTICLE PACKING • LONG-TERM INTEGRITY

Optimized solid packing

Conventional extended slurry

SOLID VOLUME FRACTION (SVF)

AbraLITE engineered blend



CONVENTIONAL EXTENDED SLURRY

Conceptual illustration - not to scale

50%
SOLID FRACTION
vs 23% conventional

0.01 md
PERMEABILITY
vs 10 md conventional

>1,300 psi
STRENGTH
vs <350 psi at surface

Where AbraLITE adds value

APPLICATIONS

- Weak or low-fracture-gradient formations
- Loss-prone intervals where cement-to-surface is critical
- Deep intermediate casing requiring robust zonal isolation
- Gas and sustained casing pressure (SCP) challenges

BENEFITS

- Low density without excessive mix water
- High early strength with very low permeability
- Minimal reported shrinkage for barrier integrity
- Flexible design window across multiple well objectives

AbraLITE SYSTEM PORTFOLIO

AbraLITE	Ultra-AbraLITE	AbraLITE HP	AbraLITE GSP
10.5-14.5 ppg	7.5 -10.5 ppg	High-pressure designs 10.5 – 14.5 ppg	Gas solution package

ABRAJ

Performance built into the blend

Reported comparison with a conventional 12.5-ppg extended slurry

TECHNICAL COMPARISON

PROPERTY	12.5-PPG EXTENDED	AbraLITE	VALUE TO THE WELL
Solid fraction (SVF)	23%	50%	More solids at low density support faster strength development.
Permeability	10 md	0.01 md	Very low permeability limits unwanted fluid entry into the cement column
Ability to cure losses	Poor	Good	Higher solids packing and gel structure support loss mitigation
Shrinkage	More than 5%	Minimal	Reduced shrinkage helps protect zonal isolation
Design flexibility	Limited	Wide Range	Wide density portfolio can be tailored to the well objective
Compressive strength surface conditions	<350 psi	>1,300 psi	Strong reported early strength development, including at low temperature
Cement bond logging	Poor	Good	Better reported cement coverage and bond-log response

Values and qualitative ratings are reproduced from the supplied AbraLITE data and depend on the final design and test conditions.

Field deployment highlights

GAS-TIGHT SOLUTION

Natih field, PDO

Successfully implemented where sustained casing pressure and losses were key challenges.

HIGH-PRESSURE SOLUTION

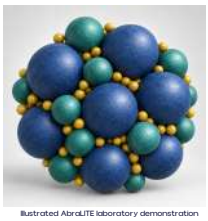
Deep intermediate casing

AbraLITE HP was successfully pumped where zonal isolation and well integrity were critical under a low fracture gradient.

ULTRA-LOW DENSITY

AbraUltraLITE

The 7.5-10.5 ppg system is designed for curing and shielding formation losses.



Illustrated AbraLITE laboratory demonstration

THE AbraLITE ADVANTAGE

More solids. Less compromise.

AbraLITE uses engineered particle-size distribution to combine lightweight placement with the strength, low permeability and design flexibility needed for demanding cementing environments.

ENGINEER THE BARRIER AROUND THE WELL

For technical evaluation, engage the Abraj Cementing Technology team. Final slurry selection requires laboratory validation.