MI SWACO
A Schlumberger Company

Diatomaceous Earth Filter Media

Ensure fluid quality for successful completions

APPLICATIONS

- Completion brine
- Process water
- Industrial discharge water
- Commercial bilge water
- Surface water runoff

BENEFITS

- Reduces particulates over a wide range of sizes
- Enables regenerative filtration
- Ensures uniform particulate sizing

FEATURES

- Permeability between 420 and 20,000 mD
- Highly stable composition and porosity

Maintaining completion fluid quality is an important part of a successful completion. Completion brines that make direct contact with the pay zone or remain in the wellbore after completion must be filtered to remove any solids that might lead to completion hardware problems or impact the production zone. Even small or colloidal particles in the brine can negatively affect recovery. Whether the operation calls for diatomaceous earth (DE) filter media or cartridges, M-I SWACO optimizes the filtration process to meet fluid quality specifications while fulfilling operational requirements and rig limitations.

M-I SWACO recommends the right regenerative filter media to deliver optimal permeability for the application, meeting all processing or efficiency expectations. The filter media of choice is flux-calcined DE to help ensure uniform particulate sizing and distribution, which assists in creating a stable filter. Medium and fine DE should be used only for special projects because they can significantly reduce flow rate.

On request, M-I SWACO provides blends—including cellulose, carbon, and modified clays—to further enhance filtrate quality and efficiency.

Particle Size and Properties

Grade (flow rate)	Relative Flow Rate, galUS/min [L/min]	Median Particle Diameter, um	Bridging Particulate Diameter, um	Trappable Particulate Diameter, um	Typical Dry Bulk Density, lbm/ft^3 [kg/m^3]
Coarse (fast)	1,150 [4,353]	48	2.31	0.99	15 [225]
Medium (medium)	850 [3,218]	33	1.91	0.82	14 [224]
Fine (slow)	650 [2,461]	28	1.76	0.76	14 [224]