

Polyplug - reagent-filler for drilling fluids

Manufacturer
АО «НПО «Polycell» (joint stock company, Russia)
TS 2458-043-97457491-2010



Reagents-fillers of the Polyplug series are designed for prevention and elimination of mud absorption. Reagents-fillers Polyplug consists of fibrous and flaky materials of organic origin, granular mineral fillers and polymeric modifiers of natural and synthetic origin, providing hardened filling of pores, cracks and cavities and accelerated claying of the emerging screen.

Reagent filler is evenly distributed throughout the volume of the process fluid, not floating up and not settling on the bottom.

Product Characteristics

	Polyplug-1	Polyplug -3	Polyplug -5	Polyplug -10
Mass fraction of the residue on a 5 mm sieve,%, not more than	100			
Mass fraction of water,%, not more than	70			
Mass fraction of the remainder on the grid (mm),%, not more than				
1	10	-	-	-
3	-	10	-	-
5	-	-	10	-
10	-	-	-	10
Hydrogen pH of the aqueous suspension with a colmatant content of 10% by weight.	8,0 – 9,0			
Solubility in 15% HCl solution, % not less than	30			

The granulometric composition of the reagent can be adjusted for specific customer requirements (for example, grade "6A").



Application

Filler Reagents Polyplug is used to prevent and eliminate mud absorption during drilling of drained and highly permeable granular and mixed granular-fractured reservoirs, as well as to reduce the likelihood of differential sticking of the drill string.

Reagents-fillers of the Polyplug series effectively block the permeable layers, have minimal effect on the rheological properties of the drilling mud.

Unlike mineral colmatizing fillers, the Polyplug reagents have a low density, which makes it possible to use them in various formulations of lightweight drilling fluids and foam systems.

Reagent consumption is ~ 10-30 kg per 1 m³ of drilling mud.

To prevent absorption and filtration losses of the drilling fluid, it is recommended to use Polyplug filler reagents in the amount of 5-20 kg/m³.

To eliminate the already acquired absorption of drilling mud, it is necessary to increase the consumption and introduce reagents-fillers in an amount up to 40-60 kg/m³.

Reagents-fillers of the Polyplug series are effective as the main filler of viscoelastic compounds pumped into the well in the form of blocking packs to eliminate the absorption of drilling mud.

Packaging

The product is supplied in polypropylene bags with polyethylene inserts of 15-50 kg.

Storage

Product stored in warehouses. Allowed storage of the product under a shed or on a planned site, protected from mechanical damage, precipitation, soil moisture, and away from sources of fire.

Warranty period of storage 12 months from date of manufacture, in compliance with customer requirements transportation and storage.

Hazard class

Low-hazard product. A danger class – 4.