

Micronized cement Ultracement

Manufacturer
АО «НПО «Polycell» (joint stock company, Russia)
TS 5739-019-56864391-2010

JSC "NPO Polycell" produces and delivers superthin Ultracement similar to a very finely dispersed cement Microdur. The following Ultracement grades are manufactured: Ultracement-15, Ultracement-10, Ultracement-7, Ultracement-5.

Product Characteristics

	Ultracement-15	Ultracement-10	Ultracement-7	Ultracement-5
Fineness of grinding, the mass fraction of particles is larger:				
- 15 microns,%, not more than	15	not rated	not rated	not rated
- 10 microns,%, not more than	not rated	10	not rated	not rated
- 7 microns,%, not more than	not rated	not rated	10	not rated
- 5 microns,%, not more than	not rated	not rated	not rated	10
Average (median) particle size, micron, not more than	7,0	5,0	4,0	3,0
Water-cement ratio	0,80	0,95	1,05	1,2
Density of cement mortar, kg/m ³	1460-1560	1440-1540	1420-1520	1400-1500
Spreadability of cement paste 44% water, mm, not less than	300,0	300,0	300,0	300,0
Water separation, cm ³ , not more than	2,0	2,0	2,0	2,0
Thickening time at 22 ° C, min, not less than	240,0	240,0	240,0	240,0
Strength of cement stone at 22 ° C after 1 day with bending, MPa, not less than	3,0	2,5	2,0	1,5



Ultracement is a plugging material and is designed to eliminate complications during drilling, during workover of oil and gas wells in the following cases:

- for stopping behind-the-casing-flow along the annulus;
- for cementing highly permeable and weakly resistant moistened displacing rocks;
- restoration of the strength of broken cements;
- vertical and horizontal waterproofing of underground structures;
- for liquidation of large caverns and voids (up to 40-50 m) using the device ULKP.

Ultracement is supplied to the repair zone in the form of an aqueous suspension or using a transport agent (polyglycols, diesel fuel) or injected using injectors, with penetration of microcement into thin pores and cracks. The microcement slurry has a high mobility comparable to mobility of water even at a minimum W/C ratio. The permeability of the suspension is comparable to the dispersionless binders. Ultracement, depending on the brand of the initial cement raw material, hardens in wide temperature ranges, it is resistant to aggressive environments, does not shrink. Ultracement provides significant advantages when using it as an additive to well cement when installing cement bridges and cementing casing strings. When 20% Ultracement is added into the formulation, an increase in the stability of the solution is provided, a significant increase in the early strength of the cement stone and its adhesion to the metal and rocks, even at low temperatures.

Packaging

Micronized cement is packed in big bag of 900 kg.

Storage

Micronized cement Ultra-cement is stored in warehouses.

The warranty period of storage is 12 months from the date of manufacture, if the consumer observes the requirements of transportation and storage.

Hazard Class

Low-risk product. The hazard class is 4.