

Technical Bulletin

Resin Coated Proppants









Description

PR6000™ proppants are a precured resin coated sand available in 16/30, 20/40, 30/50, and 40/70 mesh sizes. These proppants are a proven precured premium resin coated sand.

Typical Applications

Fracture treatments:

- At closure stress up to:
 - 8,000 psi [55 MPa] (16/30 and 20/40)
 - 10,000 psi [83 MPa] (30/50 and 40/70)

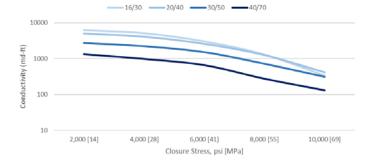
Technical Advantages and Benefits

- High conductivity
- Proppant fines reduction
- Reduces respirable silica dust exposure below PEL limits

Conductivity

PropTester, Inc. Long-Term Baseline Procedure Proppant Concentration: 2 lb_m/ft² [9.8 kg/m²], Temp: 250°F [121°C]

Closure Stress, psi [MPa]	2,000 [14]	4,000 [28]	6,000 [41]	8,000 [55]	10,000 [69]	
Size	Conductivity (md-ft)					
16/30	6,259	5,155	3,046	1,302	336	
20/40	4,949	4,054	2,577	1,254	418	
30/50	2,723	2,214	1,513	720	312	
40/70	1,339	991	665	278	132	

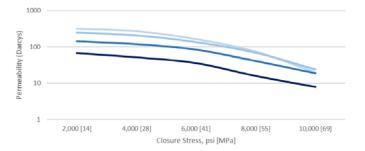


Permeability

PropTester, Inc. Long-Term Baseline Procedure

Proppant Concentration: 2 lb_m/ft² [9.8 kg/m²], Temp: 250°F [121°C]

1 TOPPANT COMOGNICAN			. O	. [0]	
Closure Stress,	2,000	4,000	6,000	8,000	10,000
psi [MPa]	[14]	[28]	[41]	[55]	[69]
Size	Permeability (Darcy)				
16/30	312	268	163	74	20
20/40	247	206	135	69	24
30/50	142	119	84	41	19
40/70	68	52	36	16	8

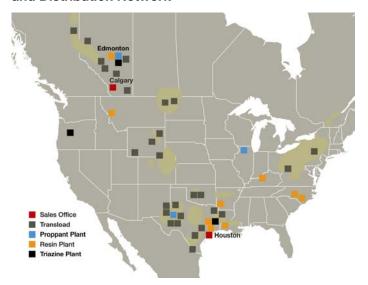


Chemical Properties	Typical			
Composition	resin coated, northern white frac sand			
Resin Type	precured			
Color*	reddish-brown			
Solubility, weight %				
in water, brine & HCI	0.0			
in HCI/HF acid, API RP 19C	≤ 0.3			
in oil	0.0			

^{*}May vary due to white substrate hue variation. Color does not influence performance.

Physical Properties	Typical					
Mesh Size	16/30	20/40	30/50	40/70		
Physical State	solid granule					
Specific Gravity	2.60	2.59	2.61	2.59		
Bulk Density						
g/cm ³ [lb/gal]	1.60 [13.4]	1.57 [13.1]	1.58 [13.2]	1.43 [11.9]		
Pipe Fill Factor						
cm³/g [gal/lb]	0.624 [0.0748]	0.637 [0.0763]	0.633 [0.0758]	0.699 [0.0838]		
Specific Volume						
cm³/g [gal/lb]	0.384 [0.0460]	0.386 [0.0463]	0.383 [0.0459]	0.386 [0.0463]		

North America Manufacturing and Distribution Network



Hexion continues to strategically locate transloads and proppant plants near the major shale plays in North America to meet the industry's increasing need for resin coated proppants.



Hexion Inc.

Oilfield Technology Group 15366 Park Row Houston, TX 77084 USA +1 281 646 2800 hexion.com/oilfield

For more information, visit hexion.com/oilfield or fracline.com.

 $@,\ ^{\text{TM}}$ and $^{\text{SM}}$ denote trademarks owned or licensed by Hexion Inc.

© 2018 Hexion Inc. All rights reserved. 7/26/18

The information provided herein was believed by Hexion Inc. ("Hexion") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Hexion are subject to Hexion's terms and conditions of sale. HEXION MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY HEXION, except that the product shall conform to Hexion's specifications. Nothing contained herein constitutes an offer for the sale of any product.