



cementing plugs

TECHNICAL SHEET

**TYPE 252/253 & Type 247/248
Phenolic Core Cementing Plugs**

Type 252/253 – Standard Cementing Plugs

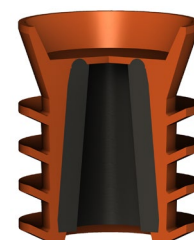
Top-Co’s Type 253 Standard Bottom Cementing Plug wipes the casing clean of drilling mud, separating fluids, and prevents cement contamination. Type 252 Standard Top Cementing Plug is the cement displacement plug. These cementing plugs have a phenolic core and are designed to be drilled out with PDC (Polycrystalline Diamond Compact) drill bits.



Type 252
Standard Top Plug

Type 247/248 – Non-Rotating Cementing Plugs

Type 247 Non-Rotating Top Cementing Plugs and Type 248 Non-Rotating Bottom Cementing Plugs are phenolic cored with integral teeth designed to prevent rotation of the plugs during drill out operations. The plugs can be drilled with either Tri-Cone or PDC drill bits.



Type 253
Standard Bottom Plug

Performance Features:

- Phenolic core offers faster drill out than aluminum core plugs.
- Wiping and sealing fins are designed to allow for proper wiping and sealing.
- The standard wiping and sealing fins are molded from Natural Rubber (Intermittent Service Temperature: -65 to 180°F).
- Hydrogenated Nitrile Butadiene Rubber (HNBR) (Intermittent Service Temperature: -40 to 300°F) is a high temperature option.

Note: All HNBR Cementing Plugs (Top and Bottom) are black in color.

- Differential pressure of up to 5,000 psi (size dependent).
- The bottom plug has a diaphragm rupture rating of 200-500 psi.
- The plugs are designed to fit in most cementing heads.
- The Type 247/248 plugs offer up to 95% reduction in drill out times can be achieved when compared to plugs without non-rotating features.
- The Type 247/248 plugs are designed to fit in conventional cementing heads and can be run with any conventional Top-Co float equipment with a non-rotating plate installed at time of manufacture.



Type 247
Non-Rotating Top Cementing Plug



Type 248
Non-Rotating Bottom Cementing Plug

Application		Natural Rubber (NR)	Hydrogenated Nitrile (HNBR)	Polyurethane
Acid Resistance	Dilute	Fair to Good	Good	Fair
	Concentrated	Fair to Good	Good	Poor
Resistance	Swelling in Lubricating Oils	Poor	Excellent	Good
	Oil & Gas	Poor	Excellent	Good
	Water Absorption	Good	Good	Poor
	Ozone	Poor	Excellent	Excellent
	H2S	Poor	Fair	Poor
	CO2	Poor	Fair	Poor
	Sunlight aging	Poor	Excellent	Very Good



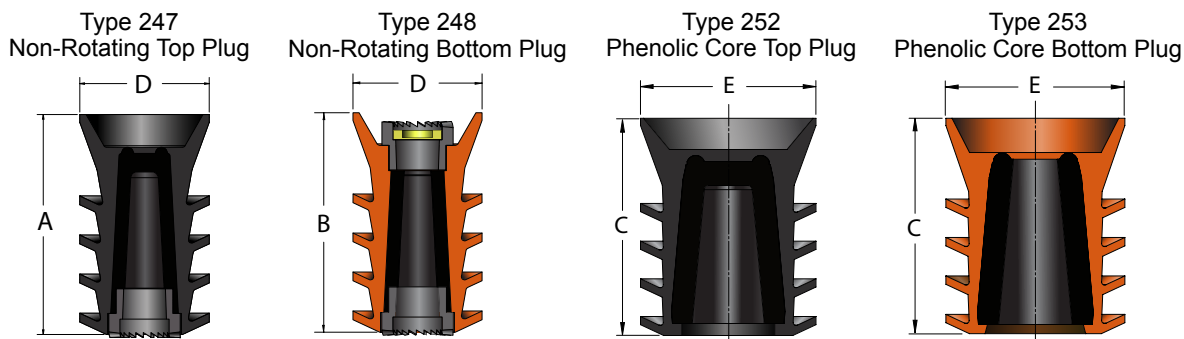
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TYPE 252/253 & Type 247/248

Phenolic Core Cementing Plugs

Cementing Plugs Specifications:



SIZE (in)	Weight Range (PPF)	Bump Pressure (psi)	Min. ID (in)	Max. ID (in)	"A" (in)	"B" (in)	"C" (in)	"D" (in)	"E" (in)
4-1/2"	9.50 - 15.10	5,000	3.826	4.090	7.875	7.875	7.875	4.276	4.276
5"	11.50 - 21.00	5,000	4.154	4.560	8.940	8.940	9.250	4.760	4.760
5-1/2"	13.00 - 23.00	5,000	4.670	5.044	8.940	8.940	8.940	5.260	5.260
6-5/8"	17.00 - 32.00	5,000	5.675	6.135	8.875	8.875	9.313	6.310	6.310
7"	17.00 - 38.00	5,000	5.920	6.538	9.500	9.300	9.070	6.734	6.734
7-5/8" *	20.00 - 55.30	5,000	6.125	7.125	9.300	9.300	9.300	7.310	7.310
8-5/8"	24.00 - 49.00	5,000	7.511	8.097	9.750	9.750	10.150	8.360	8.360
9-5/8"	29.30 - 53.50	5,000	8.535	9.063	10.750	10.750	10.750	9.350	9.350
9-7/8"	62.80 - 68.80	5,000	8.475	8.625	9.750	9.600	11.100	9.425	9.425
10-3/4"	32.75 - 55.50	3,600	9.760	10.192	11.000	11.000	11.000	10.200	10.200
10-3/4" - XL	60.70 - 73.20	3,600	9.406	9.660	11.000	11.000	11.000	10.000	10.000
11-3/4"	38.00 - 83.00	3,600	10.368	11.150	11.000	11.000	-	11.250	-
13-3/4, "11"	48.00 - 72.00	3,600	12.347	12.715	12.700	12.700	12.700	13.000	13.000

* Plug is suitable for 7 3/4" 46.1# casing.

**Plug is suitable for 14" - 94.80-113.0# casing.