



Hi-Tech Seals



H7B1, H8B1, & H8B2

For Superior Mud Motor Boots

Historically, mud motor boots have been a limiting factor in performance for downhole tools. The boots can encounter issues during the installation process or while in application. Tension and torque forces that are involved in the installation of standard mud motor boots require usage of equipment that can accidentally damage the product.

While in an application boots undergo extreme tension and compression forces in addition to encountering various fluids and co-contaminants. Furthermore, thermal forces result in expansion of the grease packing and can create internal pressure within the boot. These elements can contribute to premature failure of the mud motor boot and result in costly down-time during drilling operations.

Taking various parameters into account, Hi-Tech Seals developed three specialty mud motor boot compounds, H7B1, H8B1, and

H8B2, that improve reliability and increase product service life. These hydrogenated nitrile (HNBR) compounds offer significantly enhanced mechanical properties and chemical resistance over standard boot materials. These compounds increase ease of installation which can reduce assembly time and improve confidence in the reliability of the product as it leaves the facility.

H7B1, H8B1, and H8B2 Advantages

- Unique balance of strength and flexibility
- Remarkable toughness
- Excellent elongation properties
- Great oil resistance
- Good mechanical properties
- Excellent tear strength
- Great chemical resistance
- Wide working temperature range

Original Physical Properties	Standards	H7B1*	H8B1*	H8B2*
Hardness, Shore A	D2240	68	82	80
Tensile Strength, psi	D412	4779	4703	4840
Elongation, %	D412	415	291	348
Modulus @ 100%, psi	D412	405	1217	799
Tear Resistance, kgf/cm (lbf/in)	D624 Die B	37.9 (212)	53.1 (297)	46 (257)
Tear Resistance, kgf/cm (lbf/in)	D624 Die C	49 (274)	43.4 (243)	56 (313)
Specific Gravity, g/cm ³	-	1.124	1.199	1.208
General Temperature Range, °C (°F)	-	-40 to 150 (-40 to 302)	-40 to 150 (-40 to 302)	-50 to 150 (-58 to 302)

H7B1, H8B1, and H8B2 are resilient and trustworthy solutions for your mud motor boot needs. For more information contact us at engineering@hitechseals.com.

**The above information is correct based on our knowledge at the date of its publication. The temperature range listed is a general guideline and final suitability will depend on various application conditions. To ensure this material meets customers' final requirements and safety demands, we recommend customers conduct their own testing.*

