



Abrasion Resistant Steel

Nitronic® 30 offers a combination of strength plus wet abrasion and corrosion resistance.

Nitronic® 30 is a nitrogen-strengthened stainless steel alloy which was initially developed to offer superior corrosion resistance in aqueous and atmospheric atmospheres.

It is known as abrasion-resistant steel and is still used today in high wear applications such as coal buckets, hoppers and magnetic ore separator screens. Combined with good overall toughness, the alloy provides an economical solution in a broad range of applications. Nitronic 30 offers numerous benefits - the material is significantly stronger than 304 stainless steel (up to 50% higher yield).

Motorsport Applications

Application uses include fasteners, hose clamps, bumpers and structural framework. The material is easily welded and will withstand substantial impact without cracking. The strength to weight ratio alone is up to three times greater than carbon steel.

Benefits

- Superior fatigue resistance
- Good overall toughness
- High impact resistance
- Economical - higher yield strength, when compared to 304 stainless steel, offers the potential for lower gauge material to be used while maintaining strength
- Superior corrosion resistance
- Can be readily welded
- Excellent resistance to sulphide stress cracking
- Superior ductility

Machinability

Good machinability using conventional machining techniques when using resulphurised lubricant at slow speeds.

Availability

Nitronic® 30 is available in round bar and plate

Smiths High Performance is a leading stockholder and supplier of high-performance engineering materials to the global motorsport sector. We are supply partners in a range of specialist motorsport markets including Formula 1, Formula E, NASCAR, MOTO GP, WEC & WRC.

Further technical data available on the reverse of this Datasheet

Chemical Composition

	Mn	Cr	Ni	Si	N	C	S	Fe
Min	15.0	15.0	1.50		0.15			Rem
Max	17.0	17.0	3.00	1.0	0.30	0.03	0.03	Rem

Mechanical Properties

Tensile Strength	Yield Strength	Elongation	Hardness (Brinell)	Hardness (Rockwell B)
655 MPa (95 KSi)	330 MPa (48 KSi)	35%	241	100

Other Designations

Equivalentents include ASTM A240 and ASTM A666

Applications in Motorsport

- Fasteners and fixings
- Hose clamps
- Bumpers
- Structural framework

...where performance matters...

When you purchase high-performance materials from **Smiths High Performance**, you will be joining some of the biggest and best global engineering companies. We are a Tier 1 supply chain partner to the world's leading motorsport companies. Our unique business structure and ethos allows us to offer services which are otherwise unavailable in this market sector.