NC310YW Steel (AMS 6499)

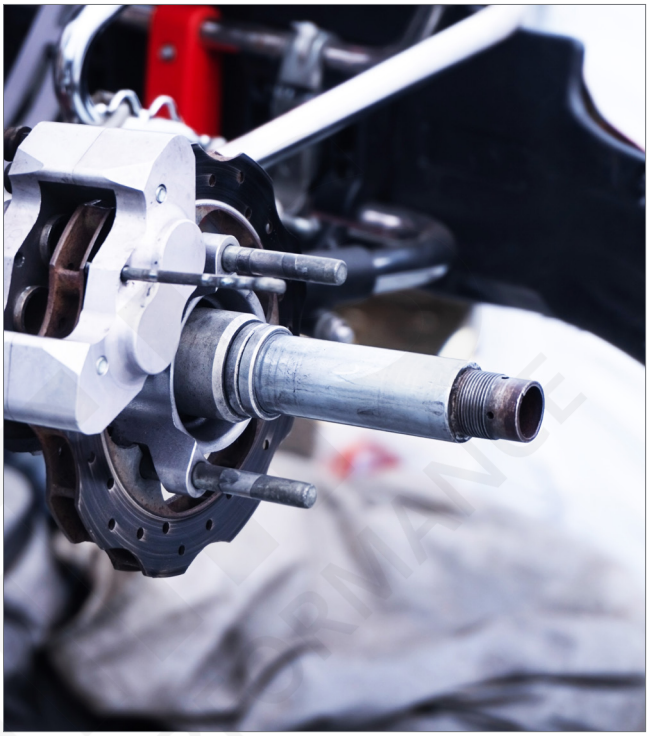
Smiths High Performance

For High Fatigue Stress Applications

A highly suitable engineering material for high mechanical & fatigue stress resistance.

In motorsport, such applications include gears, torsion bars, transmission shafts, axle shafts and driveshafts for Formula 1 racing cars.

NC310YW is also known as 40SiNiCrMoV10 and benefits from high strength, and the alloy's ultimate tensile strength (UTS) is 10% higher when compared to 300M steel. Carburising the alloy reduces the susceptibility of particular components vulnerable to contact friction. Carburised parts can be surface coated due to the alloy's high tempering temperature (300° C).



Cost Effectiveness:

NC310YW is highly cost-effective when compared to maraging steels. The alloy also offers excellent fatigue resistance when compared to precipitation-hardened steel. Our product provides excellent elevated temperature performance and very high strength.

Applications:

- Gears and torsion bars
- Transmission & axle shafts
- Driveshafts & Tripods (Formula 1)

Benefits:

- High fatigue and mechanical stress resistance
- Very high strength (better than 300M)
- Excellent fatigue resistance compared to PH steels

*Chemical Composition (weight %)

	C	Mn	S	P	S	Cr	Ni	Mo	V
Min.	0.37	0.50	2.60			0.65	1.50	0.30	0.10
Max.	0.44	0.95	2.85	0.015	0.010	1.05	2.10	0.55	0.30

*Properties as per AMS 6499

About Smiths High Performance

Smiths High Performance is a leading stockholder and supplier of high-performance engineering materials. We are material supply chain partners supporting **high-technology market sectors**.

SCAN ME

Unit 3, Juno Place
Stratton Business Park
Biggleswade SG18 8XP
Tel: +44 (0)1767 604 708

AS/EN 9120 Aviation Space and Defence CERTIFIED

UKAS TESTING 1930