EN24 Steel Properties

EN24

EN24 is usually supplied in the condition with a tensile strength of 850/1000 N/mm$^{2.}$

EN24 steel is a popular grade of through-hardening alloy steel due to its excellent machinability in the "T" condition. EN24 is used in components such as gears, shafts, studs and bolts, its hardness is in the range 248/302 HB. EN24 can be further surface-hardened to create components with enhanced wear resistance by induction or nitriding processing.

EN24 steel is a high tensile alloy steel renown for its wear resistance properties and also where high strength properties are required. EN24 is used in components subject to high stress and with a large cross section. This can include aircraft, automotive and general engineering applications for example propeller or gear shafts, connecting rods, aircraft landing gear components.

Typical chemical composition of En24

C	Sl	MN	S	P	Cr	Mo	Ni
0.36/0.44	0.10/0.35	0.45/0.70	0.040 max	0.035 max	1.00/1.40	0.20/0.35	1.30/1.70

Hardening EN24:

Heat uniformly to 823/850°C until heated through. Quench in oil.

Tempering:

Heat uniformly and thoroughly at the selected tempering temperature, up to 660°C and hold at heat for two hours per inch of total thickness.
Tempering between 250-375°C in not recommended as this can seriously reduce the steels impact value.

Stress Relieving:

Heat slowly to 650-670°C, soak well. Cool the EN24 tool in a furnace or in air.