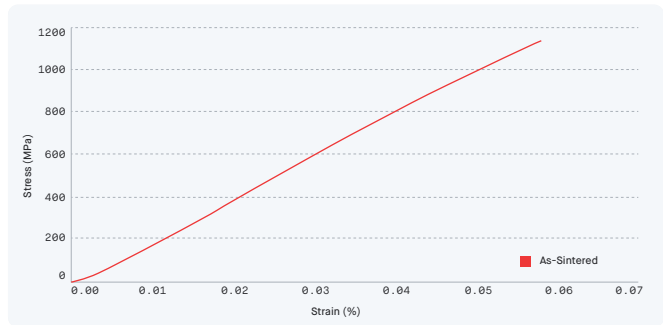


[Material Data Sheet]

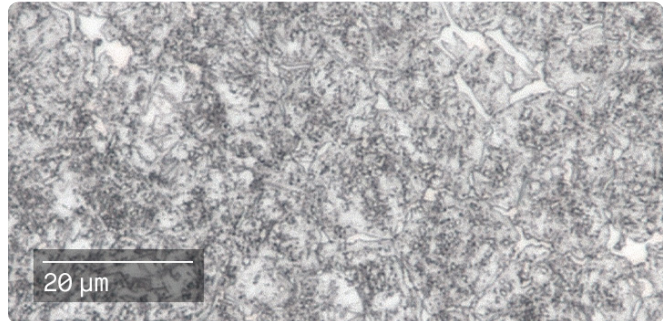
# 440C

## High Carbon Martensitic Stainless Steel



**COMPOSITION %**

C	0.09 – 1.25
Cr	16 – 18
Mo	0.75 (Max)
Nb	3.5 (Max)
Ni	0.6 (Max)
Mn	1.0 (Max)
Si	1.0 (Max)



**MECHANICAL PROPERTIES**

	Standard	Production System™ As Sintered	Production System™ MPIF 35
Hardness (HRC)	ASTM E18	58 ± 1	56
Density (g/cc)	ASTM B311	7.64	–
Ultimate tensile strength -x (MPa)	ASTM E8M	1104	1030 – 1310
Elongation - x (%)	ASTM E8M	0.6	< 1
Charpy Impact* - xy (J)	MPIF 59	4.33 ± 0.5	5

**ATTRIBUTES & APPLICATIONS**

- High hardness martensitic stainless steel
- Good corrosion resistance in hardened and tempered condition
- Magnetic
- Good wear resistance

**OTHER STANDARD DESIGNATIONS**

MPIF 35

\* The Charpy impact specimens are 5x10mm cross section un-notched.

End-use material performance is impacted (+/-) by certain factors including but not limited to part geometry and design, application and evaluation conditions, etc.