TATA STEEL

Hot-rolled XPF1000-UC

A stronger and more formable steel with excellent edge ductility

XPF1000-UC is the highest strength product in the XPF range of steels and represents a major breakthrough in automotive structural materials technology. Addressing the known challenges of current advanced high-strength steels in terms of forming and manufacturing, XPF combines mechanical strength and fatigue resistance with formability. As a result, this range of steels provides even greater freedom to reduce weight without compromising manufacturability.

XPF1000-UC outperforms advanced multiphase products of equivalent strength, due to its outstanding hole expansion capacity (HEC) and superior elongation.

Legend

HR = hot-rolled UC = uncoated

Mechanical properties

Grade	Specification	Test direction	Yield strength $R_{p0.2}$ (MPa)	Tensile strength R_m (MPa)	A_{80} (t ≤ 3 mm) (%)	A_{50} (t > 3 mm) (%)	HEC values (%)
HR XPF1000-UC	Tata Steel specification	L	850 - 1000	960-1120	≥ 11	≥ 12	≥ 40
HR XPF1000-UC	Tata Steel typical	L	920	990	14	16	60
HR XPF1000-UC	Tata Steel typical	T	960	1010	12	13	

Chemical composition

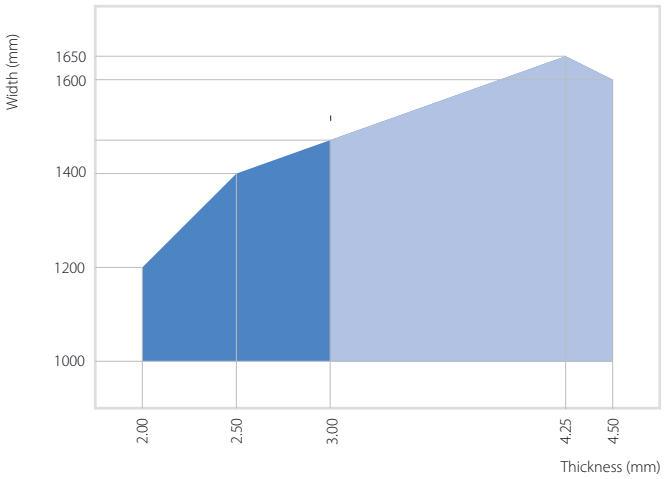
Grade	Specification	C	Mn	Si	P	S	Al		Cr+Mo	Nb+Ti	V	B
		max.	max.	max.	max.	max.	min.	max.	max.	max.	max.	max.
HR XPF1000-UC	Tata Steel specification	0.13	1.7	0.5	0.02	0.005	0.015	0.1	0.4	0.1	0.4	0.005

Values provided in mass percentages

Tolerances on thickness

½ EN 10051:2010

Dimensional window of hot-rolled XPF1000-UC



available
in development

Our material experts are there to support the deployment of XPF1000-UC in your specific application area. Our material database Aurora Online provides comprehensive data sheets and ready-to-run input decks.

For further information (also for access to Aurora Online):

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