

Appendix 1

Product Description and/or Approval Condition

Certificate No : CPH05814-SP001

Date of Issue : 8th October, 2020

* Chemical composition (heat analysis)

C Max %	Si Max %	Mn Max %	P Max %	S Max %	Cr Max %	Cu Max %	Ni Max %	Mo Max %	B Max %
0.20	0.60	1.60	0.020	0.010	0.70	0.30	2.0	0.70	0.005

* Maximum carbon equivalent CET (CEV)

Thickness (mm)	-5	(5)-(10)	10-(20)	20-(40)	40-(80)	80-(100)	100-130
CET	0.34	0.31	0.31	0.36	0.39	0.39	0.41
CEV	0.48	0.48	0.48	0.52	0.58	0.58	0.67

CET : $C + (Mn + Mo)/10 + (Cr + Cu)/20 + Ni/40$
 CEV : $C + Mn/6 + (Cr + Mo + V)/5 + (Cu + Ni)/15$

* Mechanical properties

Thickness (mm)	YS (MPa)	TS (MPa)	EL (%)
4 - 53	min. 700	780 - 930	min. 14
(53) - 100	min. 650	780 - 930	min. 14
(100) - 130	min. 650	710 - 900	min. 14

For transverse test pieces according to EN 10025.

* Charpy V-notch impact properties : Min. 69 J at -40°C (transverse, 10x10 mm)

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