

# CHROME - MOLYBDENUM STEEL PLATE



The widest range of  
Chrome - Molybdenum  
Steel Plate available  
Ex-Stock within the UK.  
A fast efficient service delivering  
quality approved steel plate and  
profiles from our extensive  
warehousing in Stoke on Trent.

Recognising the growing worldwide demand for plate with elevated temperature properties, we are pleased to offer an extensive stock range to allow you to fast track process plant projects.

#### QUALITIES SUPPLIED:

ASME SA 387  
Grades 5, 11, 12 and 22

BS 1501 Pt2 1988  
620, 621 and 622

BS EN 10028-2:1993  
16Mo3  
13 CrMo 4-5  
10 CrMo 9-10

#### **The Benefits**

- Fast Efficient cutting service
- Extensive thickness range 6mm – 100mm
- Plate widths up to 3m from stock
- All plate from major Northern European Mills
- Full technical support
- Profiled parts to your drawings
- Shipped world wide



# Technical Data

## CHEMICAL COMPOSITION

BS 1501 Pt 1988 620 B (modified)  
ASME SA 387 G12 CL2  
EN 10028-2 13 Cr Mo 4-5

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Nb	V
Ladle analysis	0.09	0.40			0.15			0.80	0.45			
	0.18	0.65	0.025	0.015	0.40	0.30	0.30	1.15	0.60	0.020	–	–
Typical values	0.15	0.54	0.007	0.004	0.23	0.16	0.21	1.00	0.50	0.021	0.006	0.001

## IMPACT AND MECHANICAL PROPERTIES

Typical minimum average Charpy V Notch impact energy, 185 Joules at 20°C

	Yield Strength	Tensile Strength	Elongation
Typical Values	N/mm2	N/mm2	%
	360	520	23

## CHEMICAL COMPOSITION

BS 1501 621 (Modified)  
ASME SA 387 G11 Cl 2

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Nb	V
Ladle analysis	0.09	0.40			0.50			1.00	0.45			
	0.17	0.65	0.025	0.015	0.80	0.30	0.30	1.50	0.60	0.020	–	–
Typical values	0.15	0.54	0.02	0.004	0.60	0.20	0.23	1.22	0.53	0.023	0.00	0.01

## IMPACT AND MECHANICAL PROPERTIES

Typical minimum average Charpy V Notch impact energy 160 Joules at 20°C

	Yield Strength	Tensile Strength	Elongation
Typical Values	N/mm2	N/mm2	%
	368	530	22

## CHEMICAL COMPOSITION

BS 1501 Pt 1988 622-B (Modified)  
ASME SA 387 GR22 CL2  
EN 10028-2 10 Cr Mo 9-10

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	Nb	V
Ladle analysis	0.09	0.30						2.00	0.90			
	0.15	0.60	0.025	0.015	0.50	0.30	0.30	2.50	1.10	0.020	–	–
Typical values	0.14	0.48	0.008	0.002	0.225	0.10	0.10	2.39	1.00	0.021	0.01	0.01

## IMPACT AND MECHANICAL PROPERTIES

Typical minimum average Charpy V Notch impact energy 217 Joules at 20°C

	Yield Strength	Tensile Strength	Elongation
Typical Values	N/mm2	N/mm2	%
	375	530	25

## WELDABILITY FOR ALL GRADES

Due to the carbon content and additional alloying elements this grade of steel when welded may be susceptible to hardening, resulting in brittle weld areas.

Where the mechanical properties have been obtained by heat treatment, welding may result in a reduction of these properties and post weld heat treatment may be required to restore them.

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