

NIKROM 350

Ready to use bars which eliminate the risk of corrosion of piston rods. NiKrom has dual layers of plating. A hard chromium plate on the outside with a substrate layer of nickel. The nickel has no micro cracks and it seals the base material from the atmosphere

APPLICATION AREAS

Mining, production of chemicals, oil and gas transport, civil engineering, agriculture, marine and offshore, corrosive chemicals and extreme climates.

TYPICAL CHEMICAL ANALYSIS OF 280X STEEL (20MnV6 improved)

C %	Si %	Mn %	P %	S %	V %	C.E.% (*)
0.18	0.35	1.55	<=0.02	0.025	0.11	0.55 max

*C.E.= $\%C + \%Mn/6 + (\%Cu + \%Ni)/15 + (\%Cr + \%Mo + \%V)/5$

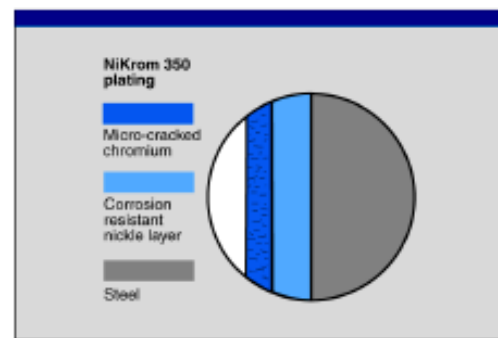
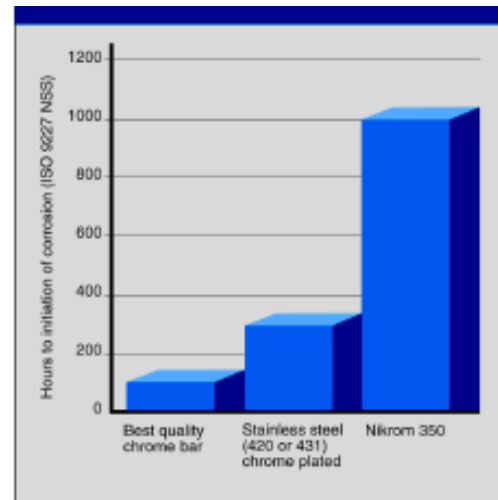
OTHER GRADES:

Other steel grades can be offered with NiKrom surface treatment. Further, it is possible to combine the outstanding corrosion resistance of NiKrom with an induction-hardened or a tubular execution.

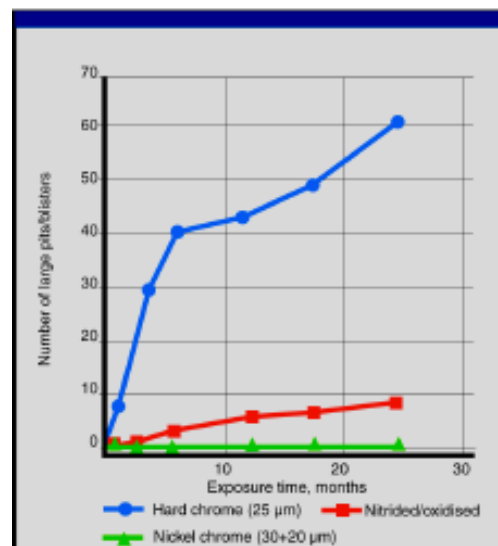
Mechanical properties

Size Ø mm	Yield stress ReH, N/mm ²	Tensile stress R _m , N/mm ²	Elong'n A ₅ , %	Hardness HB	Toughness KV, Joule
20-90	>=520	650-800	>=19	200-240	>=27 at -20°C
>90-125	>=440	550-700	>=19	180-230	No guarantee(*)
>125	>=350	550-700	>=19	180-230	>=27 at -20°C

*Base steel meeting KV³27J at -20°C can be supplied by special arrangement



Long-time exposure test of piston rods in marine environment



Data source: Swedish Institute for Production Engineering Report No 90811

SURFACE LAYER AND SURFACE FINISH:

Nickel layer	Chrome layer	Surface roughness
Thickness $\geq 30 \mu\text{m}$	Thickness $\geq 20 \mu\text{m}$	Ra $\leq 0.2 \mu\text{m}$
Hardness ca 300 HV _{0.1}	Hardness $\geq 850 \text{HV}_{0.1}$	Rt $\leq 1.6 \mu\text{m}$

STRAIGHTNESS AND ROUNDNESS:

Refer to 280X (20MnV6)

DIMENSIONAL TOLERANCES:

DIAMETER TOLERANCE	STRAIGHTNESS	OVALITY
ISO f7	0.1 mm/m	50% of f7

CERTIFIED CORROSION RESISTANCE:

	ISO 9227 NSS ASTM B117 Neutral salt spray	ISO 9227 AASS ASTM B287 Acetic acid salt spray
Duration Rating according to ISO 10289	>1000hours 10 (no corrosion)	>350 hours 10 (no corrosion)

DELIVERY LENGTHS:

Standard bar lengths are 6.1 +0.1/-0 m. Other lengths can be supplied but the maximum is 6.5 +0.1/-0 m. For diameters $\geq 130 \text{mm}$, the maximum length possible is 6.1 +0.1/-0 m.

PACKAGING:

Silver cardboard tubes in wooden case. Every Cromax bar is marked with product and batch information so as to facilitate full traceability.

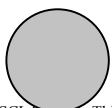
SIZES AVAILABLE: AUSTRALIAN STOCK

Diameter	
mm	inches
25.4	1
30	
31.75	1 ¼
33	
34.925	1 3/5
38.1	1 ½
44.45	1 ¾

Diameter	
mm	inches
45	
50	
50.8	2
57.15	2 ¼
60	
63	

mm	inches
63.5	2 ½
69.85	2 ¾
76.2	3
80	
88.9	3 ½
101.6	4

COLOUR CODE: SILVER



DISCLAIMER: This specification is for information purposes only. Global Metals takes no responsibility for the suitability of the steels referred to in this specification without prior notification. Global Metals takes no responsibility for any errors¹ or omissions, or for any consequences resulting from its use.