

nikrom 150

Ready-to-use bars which drastically reduce the risk for corrosion of piston rods



| NiKrom 150 Metric programme (*) | |
|------------------------------------|-------|
| Dia., mm | kg/m |
| 20 | 2.47 |
| 22 | 2.98 |
| 25 | 3.85 |
| 28 | 4.83 |
| 30 | 5.55 |
| 32 | 6.31 |
| 35 | 7.55 |
| 36 | 7.99 |
| 40 | 9.86 |
| 42 | 10.88 |
| 45 | 12.48 |
| 50 | 15.41 |
| 55 | 18.65 |
| 56 | 19.33 |
| 60 | 22.19 |
| 63 | 24.47 |
| 65 | 26.05 |
| 70 | 30.21 |
| 75 | 34.68 |
| 80 | 39.46 |
| 85 | 44.54 |
| 90 | 49.94 |
| 100 | 61.65 |

* Imperial sizes are available. The standard range for such is 0.875-4 inch and imperial bars will normally be manufactured to order.

APPLICATIONS

- Mining
- Production of chemicals
- Oil and gas
- Materials Handling
- Transportation
- Agriculture
- Civil Engineering
- Off-road vehicles

Chemical analysis of 280X steel (20MnV6 improved)

| C % | Si % | Mn % | P % | S % | V % | C.E. % (*) |
|------|------|------|--------|-------|------|------------|
| 0.18 | 0.35 | 1.55 | ≤0.020 | 0.025 | 0.11 | 0.55 max |

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

Mechanical properties

| Size (f) | Yield stress | Tensile stress | Elongation | Hardness | Toughness |
|----------|-------------------------------------|------------------------------------|--------------------|----------|-----------------|
| mm | R _{eH} , N/mm ² | R _m , N/mm ² | A ₅ , % | HB | KV, Joule |
| 20-90 | ≥520 | 650-800 | ≥19 | 200-240 | ≥27 at -20°C |
| >90-100 | ≥440 | 550-700 | ≥19 | 180-230 | No guarantee(*) |

* Base steel meeting KV≥27J at -20°C can be supplied by special arrangement.

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.

Surface layer and surface finish

| Nickel layer | Chrome layer | Surface roughness |
|-----------------------------------|---------------------------------|-------------------|
| Thickness ≥10 μm | Thickness ≥20 μm | Ra ≤0.2 μm |
| Hardness ca 300 HV _{0.1} | Hardness ≥850 HV _{0.1} | Rt ≤1.6 μm |

Dimensional tolerances

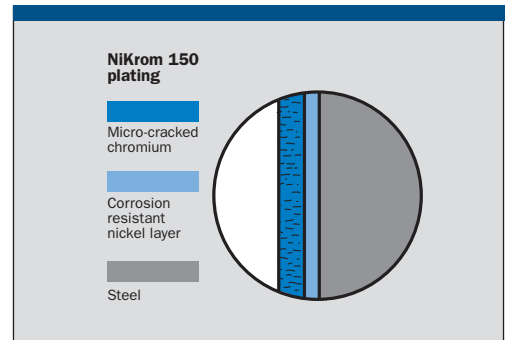
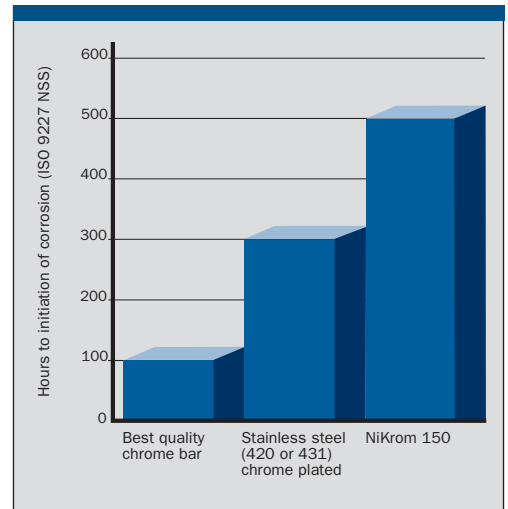
| Diameter tolerance | Straightness | Ovality |
|--------------------|--------------|-----------|
| ISO f7 | 0.1 mm/m | 50% of f7 |

Bar lengths

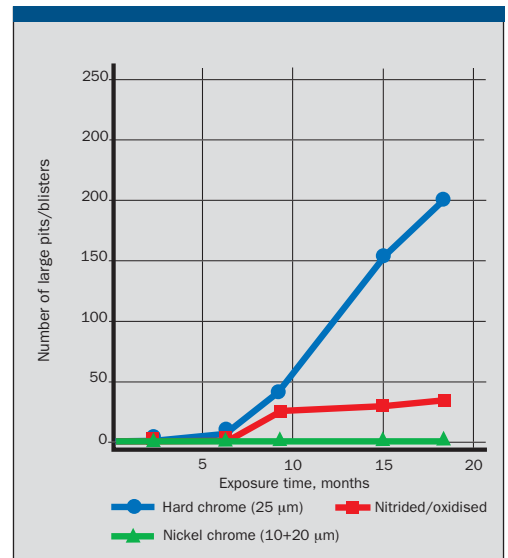
Standard bar lengths are 6 100 +100/-0 mm. Other lengths can be supplied but the maximum is 6 500 +100/-0 mm.

Certified corrosion resistance

| | ISO 9227 NSS | ISO 9227 AASS |
|-------------------------------|--------------------|------------------------|
| | ASTM B117 | ASTM B287 |
| | Neutral salt spray | Acetic acid salt spray |
| Duration | >500 hours | >150 hours |
| Rating according to ISO 10289 | 10 (no corrosion) | 10 (no corrosion) |



Long-time exposure test of piston rods in tail-gate lift cylinders



Data source: Swedish Institute for Production Engineering Report No 90811



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