



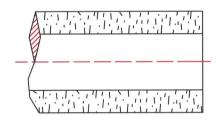
PLATING PROPERTIES

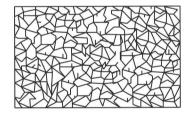
HonBar's hard chromium plating process has been designed to be auto-processed by high accuracy machinery. The operator's role is limited to monitoring. This minimizes the dependance on operator's efficiency and human error involved in the process.

Plating is done homogeneously around the diameter and length of the bar, concentricity is max. 3 microns

	PLATING PROPERTIES
CHROMIUM PLATING THCKNESS	20 micron
CHROMIUM PLATING HARDNESS	800-1000 HV or (66 - 72 HRC)
SURFACE ROUGNESS	Ra 0.10 - 0.20 micron
ADHERENCE OF PLATING	No cracking after thermal shock test $^{\circ}\text{C}$ one hour heating after putting into water 20 $^{\circ}\text{C}$
CORROSION RESISTANCE	ISO 9227 neutral salt spray or ASTM B 117 in chamber 120 hour acc. to rating 9
CHROMIUM PLATING STRUCTURE	Micro cracked structure 4000-5000 crack/mm2

Chromium Plating Structure





Micro Cracked

PLATING PROCESS

Plating is processed under full control of our chemical engineers and experienced laboratory staff.

Heat and fluid controls are fully computerized.

All plating baths are equipped with an auto-controlled cooling and a chemical properties checking system.

By means of these high-tech self controlling system, the results do not depend on the operator's efficiency.

All plating processes are checked using test baths, corrosion resistance test machines, and Micro Vickers test equipments. Plated samples are ensured to meet standards in microscopic levels

CORROSION HIGH RESISTENCE PLATED BARS

Machines working under extreme conditions, such as marine and/or aerospace machinery, agricultural machinery at some specific sectors, may require high corrosion resistance. For these requests, Honbar offers

Stainless Steel Hard Chromium Plated Bars and Double Chromium Plated Bars.

Double Chromium Plated Bars	
First layer	15 micron -+ 5 micron
Second layer	25 micron -+ 5 micron
Corrosion resistance	200 hour

Stainless steel hard chromium plated bars:

In order to getting high corrosion resistance following kinds of stainless steel are used as main materials

AISI 420 AISI 430 AISI 304 AISI 316