

**UGICHROM®**  
Hard chromiumplating  
expertise





# Quality and Innovation at the service of its customers

As a world leader in the manufacture of long stainless steel products, Ugitech has been providing solutions to satisfy his customers' most rigorous requirements for almost 100 years, thanks to his own integrated Research Centre.

As an international reference for the production of precision bars for cylinder rods, we bring our experience in technology, quality, innovation and services to develop constantly solutions that meet our customers' needs.

#### **What are the advantages of UGICHROM®?**

- Low friction coefficient
- High resistance to wear
- Increased corrosion resistance
- Micro-cracked chromium guarantees excellent performance under extreme conditions of service
- Improved machinability (up to +20% of productivity)
- High mechanical properties
- High precision geometrical and dimensional properties

#### **UGICHROM®. The choice for performance.**

Why choose UGICHROM® grades?

UGICHROM® is the result of combining the high efficiency of micro-cracking chromium plating with the technology of the most advanced bars.

#### **Customised services...**

Ugitech makes specialised services available to its chromium-plated bar customers:

- Technical assistance for development
- Availability of the Ugine Research Centre
- Product customisation

# UGICHROM® Range

UGICHROM® Grades	EN 10088-3 Designation	Symbolic Designation	US Standard and Others	Mechanical properties	
				RM	RP
<b>Standard grades</b>					
4057	1.4057	X17CrNi16-2	431	800/950	> 600
4460	1.4460	X3CrNiMo27-5-2	329	620/880	> 460
4418	1.4418	X4CrNiMo16-5-1		900/1100	> 700
4542	1.4542	X5CrNiCuNb16-4	630	930/1100	> 725
4307	1.4307	X2CrNi18-9	304(L)	> 450	> 175
4305	1.4305	X8CrNi18-9	303	> 500	> 190
4404	1.4404	X2CrNiMo17-12-2	316(L)	> 500	> 200
<b>Ugitech specific grades</b>					
4021	1.4021	X20Cr13	420	800/950	> 600
4116N	1.4116	X50CrMoV15		< 800	
4571	1.4571	X2CrNiMo17-12-2	316Ti	> 500	> 200
4062	1.4062	X2CrNiN22-2	2202	650/600	> 380
4362	1.4362	X2CrNiN23-4	2304 / 35N	650/880	>430
4462	1.4462	X2CrNiMoN22-5-3	2205 / F51	650/880	> 450
4507	1.4507	X2CrNiMoCuN25-6-3	52N+	760/890	>550

Depending on your specific needs, we will also develop new stainless steel chromium-plated solutions for you...

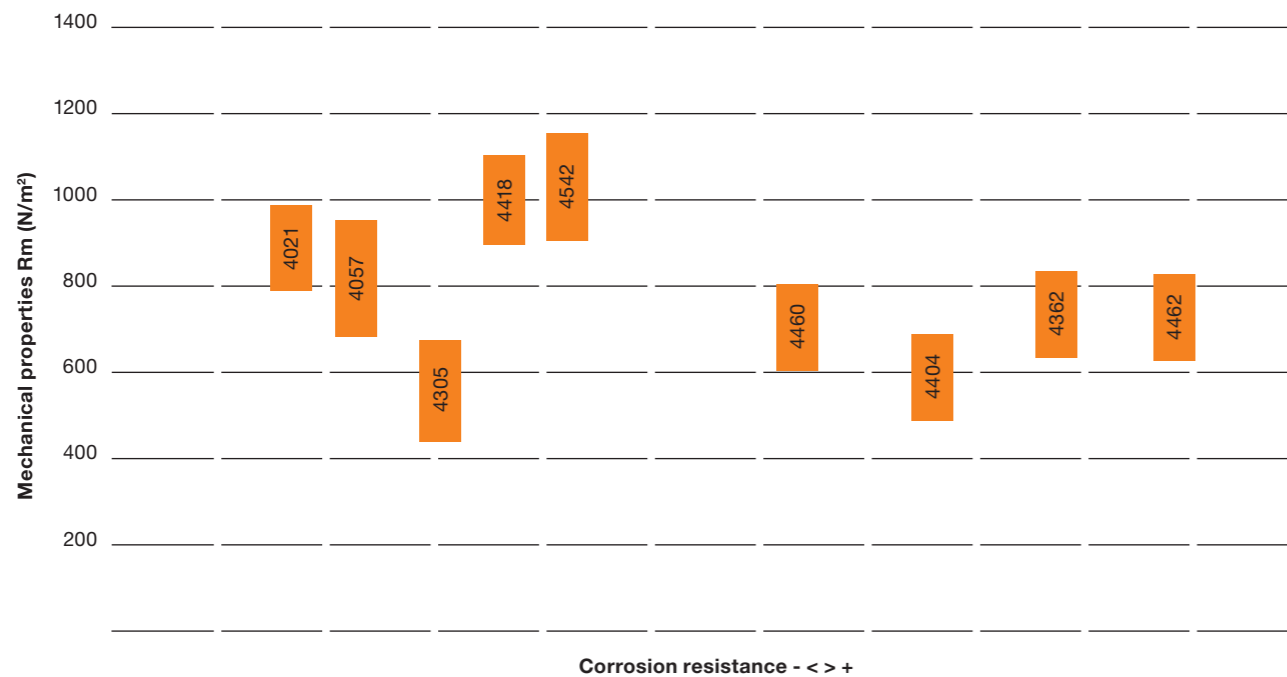


## UGICHROM® properties

Properties	Stainless steel standard product
Sizes	Ø 10 to 140 mm
Diameter tolerance	Iso f7
Bar length Ø 12 to 19.5 mm	2900 mm +200/-0
Bar length Ø 20 to 130 mm	5800 mm -0/+ 700 mm
Roundness	< 1/2 f7 Iso
Straightness (to EN 10278)	< 0.5 mm/ml
Roughness	Ra < 0.2 µm
Chromium structure	Microcracked
Chromium thickness Ø 12 to 19.5 mm	18 µm +/-3
Chromium thickness Ø 20 to 130 mm	25 µm +/-5
Hardness	900 HV 0.1 mm

Un-chromium-plated part on 80 mm at each side.

## Mechanical properties corrosion resistance



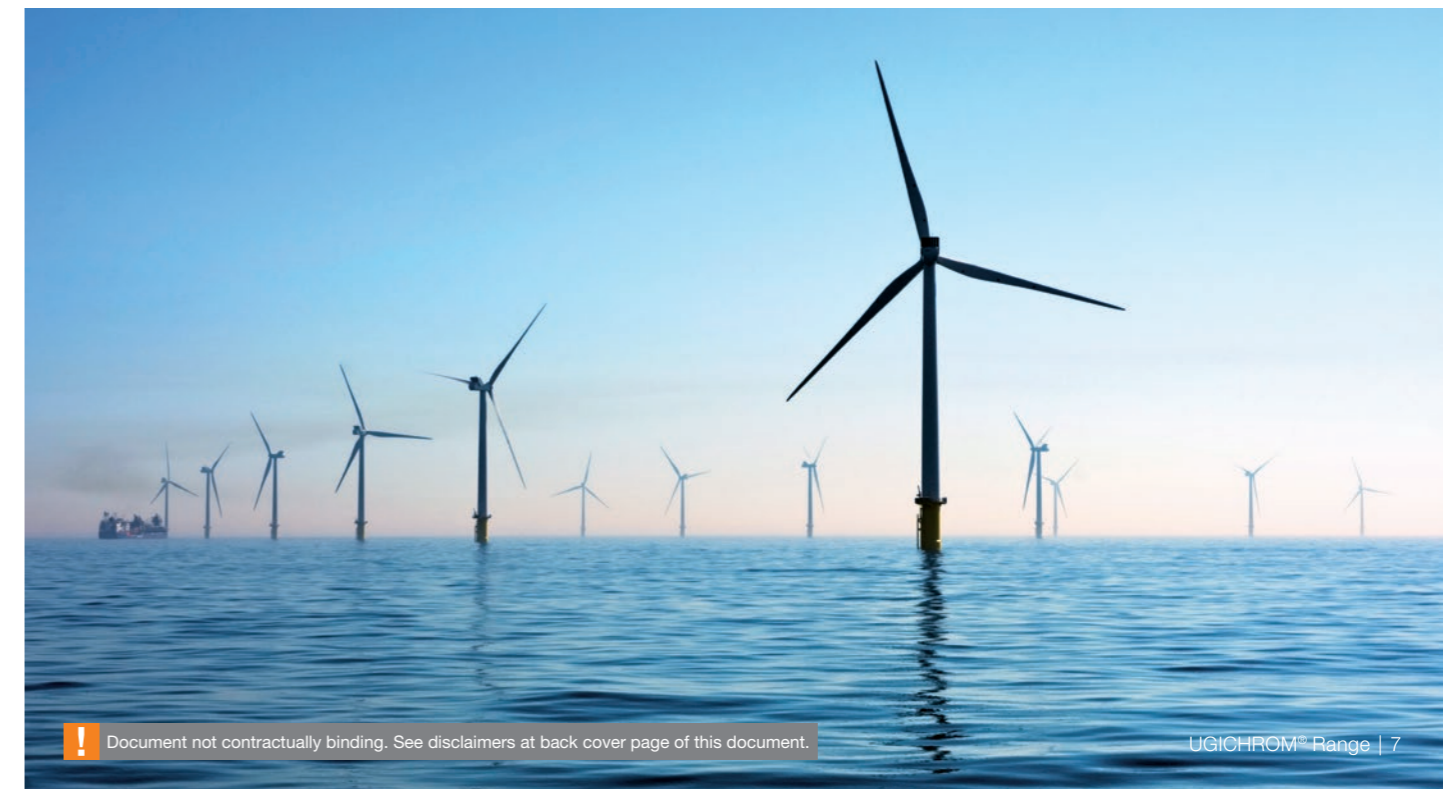
## Packaging

The UGICHROM® range offers a choice of packaging that is appropriate for the protection and deployment of the products:

- Extruded plastic sleeve: Ø 12 to 110 mm
- Individual recyclable cardboard tube: Ø 14 to 130 mm
- No individual packing in layers, with or without separators
- Possibility of ink-jet marking on the plastic sleeve along the entire length of the bar

## The essential solution to numerous high-performance applications

- Offshore
- Nuclear
- River navigation
- Maritime: cylinders for engine manoeuvring, etc
- Wind power: cylinders used for the axial rotation of wind turbine blades
- Aeronautics
- Road haulage: truck tail lifts, etc.
- Food industry
- ...





**Swiss Steel Group**

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[www.swisssteel-group.com](http://www.swisssteel-group.com)

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Applications specifically suggested for material described herein are made for the purpose of illustration only to enable the reader to make its own evaluation and are not intended as warranties, either express or implied, of fitness for any purposes.