

# UGICHROM

The Chromium-Plated  
Stainless Steel Bar  
Your stainless steel  
solutions

UGITECH

Providing special steel solutions



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**UGITECH**  
Quality and Innovation  
to better serve  
our customers

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As a world leader in the manufacture of long stainless steel products, we have been marketing solutions for nearly 100 years to meet our customers' toughest demands thanks to our in-house Research Centre.

Our in-depth experience in technology, productivity, quality, innovation and services allows us constantly to develop new solutions adapted to customer needs. This is why we produce most of our grades using our UGIMA® processes and why we are currently developing innovative and economical new grades with low nickel content.

## UGICHROM

### The Choice for Performance

Why choose Ugichrom grades ?  
Ugichrom combines the high efficiency of micro-fissuring chromium plating with the technology of Ugitech's most advanced grades.

### What are the advantages of Ugichrom?

- Zero defects guarantee
- Low friction coefficient
- High resistance to wear
- Improved corrosion resistance
- Micro-fissured chromium (1000 micro-fissures / cm<sup>2</sup>) guarantees a definitive level of resistance to extreme conditions in severe environments
- Improved machinability (up to +20% of productivity)
- Superior mechanical properties
- High level of geometrical and dimensional precision

### Customised services...

Ugitech offers customized services to its chromium-coated stainless steel bar customers:

- Technical assistance for product development
- Availability of the Ugine Research Centre



# The widest range on the market

Commercial name	EN 10088-3 reference	Symbolic name	US and OTHER references	Mechanical properties N/mm <sup>2</sup> to NFEN 10088-3	
				Rm	Rp0.2
<b>Martensitics</b>					
<b>UGICHROM 4021</b>	1.4021*	X20Cr13	420	800/950	> 600
<b>UGICHROM 4028</b>	1.4028*	X30Cr13	420	850/1000	> 650
<b>UGICHROM 4057</b>	1.4057*	X17CrNi16-2	431	900/1050	> 700
<b>UGICHROM 4418</b>	1.4418	X4CrNiMo16-5-1		900/1100	> 700
<b>UGICHROM 4542</b>	1.4542*	X5CrNiCuNb16-4	630	930/1100	> 725
<b>Austenitics</b>					
<b>UGICHROM 4305</b>	1.4305*	X8CrNiS18-9	303	> 500	> 190
<b>UGICHROM 4307</b>	1.4307*	X2CrNi18-9	304(L)	> 450	> 175
<b>UGICHROM 4404</b>	1.4404*	X2CrNiMo17-12-2	316(L)	> 500	> 200
<b>UGICHROM 4571</b>	1.4571*	X6CrNiMo17-12-2	316Ti	> 500	> 200
<b>Duplex</b>					
<b>UGICHROM 4460</b>	1.4460	X3CrNiMo27-5-2	329	620/880	> 460
<b>UGICHROM 4462</b>	1.4462	X2CrNiMoN22-5-3	F51	650/880	> 450
<b>UGICHROM 4507</b>	1.4507	X2CrNiMoCu25-6-3	52N+	760/890	> 550
<b>New stainless steel solutions</b>					
<b>UGICHROM 244</b>			244	750/950	> 550
<b>UGICHROM 4362</b>	1.4362	X2CrNiN23-4	35N	650/880	> 430

\* Available in UGIMA®

We can develop new solutions in chrome-plated stainless specially for you...

## Corrosion resistance

to ISO 9227 NSS

### Martensitics:

UGICHROM 4021: 600 h  
 UGICHROM 4028: 600 h  
 UGICHROM 4057: 1000 h  
 UGICHROM 4418: 2000 h  
 UGICHROM 4542: 2100 h

### Austenitics:

UGICHROM 4305: 2100 h  
**UGICHROM 244: 2200 h**  
 UGICHROM 4307: 2400 h  
 UGICHROM 4404: 3000 h  
 UGICHROM 4571: 3000 h

### Duplex:

**UGICHROM 4362: 3200 h**  
 UGICHROM 4460: 2700 h  
 UGICHROM 4462: 3400 h  
 UGICHROM 4507: + 3500 h

Average values obtained,  
 depending on grade,  
 and on chrome-plated sections.

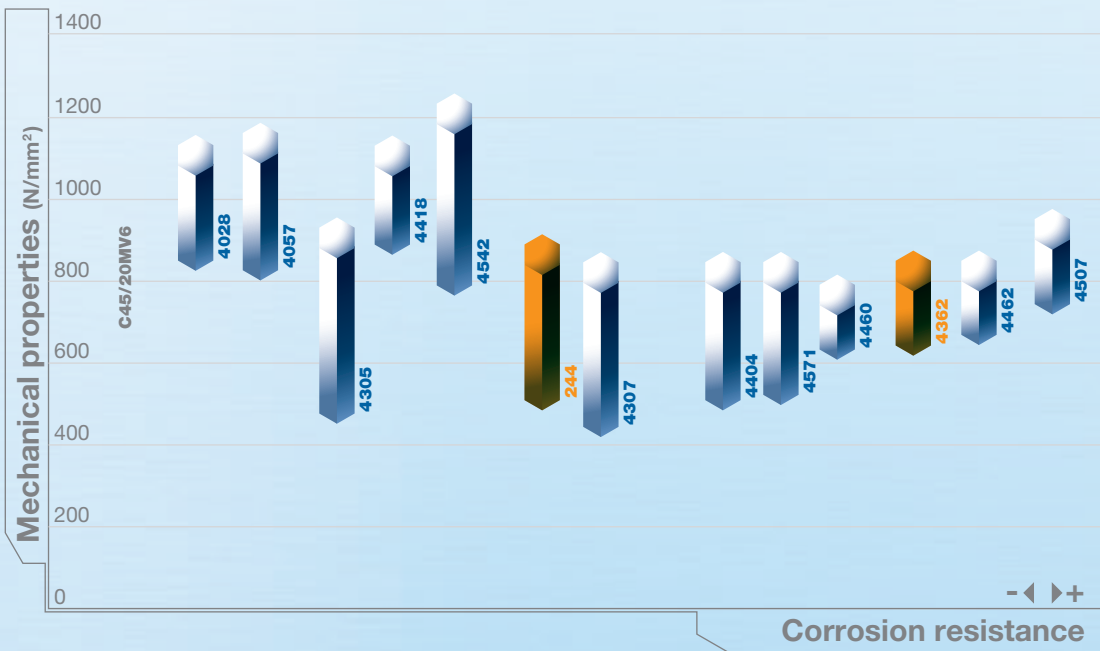


# UGICHROM properties

Properties	Standard offer	Specific offer
<b>Size range</b>	Diam. 8 to 110 mm	
<b>Diameter tolerance</b>	ISO f7 except diam. 8 to 10 f8	Upon request
<b>Bar length diam. 8 to 19 mm</b>	3000 mm +200/-0	Upon request
<b>Bar length diam. 20 to 115 mm</b>	6000 mm +/- 500 mm	Upon request
<b>Roundness</b>	< 1/2 f7 Iso	
<b>Straightness (svt EN 10278)</b>	< 0.5 mm/ml	Up to 0.2 mm for diam.>30 mm
<b>Roughness</b>	Ra < 0.2 µm	
<b>Structure of the chromium</b>	Microfissure > 1000/cm <sup>2</sup>	
<b>Thickness of the diam. 8 to 19.5 mm chromium</b>	18 µm +/-3	Max 50 µm
<b>Thickness of the diam. 20 to 115 mm chromium</b>	25 µm +/-5	Max 100 µm
<b>Hardness</b>	900 HV 0,1 mm	

Non chromium-coated portion on 80mm at each end.

## Mechanical properties Corrosion resistance



> Architects:  
WOLFF Ulric, PITZ Helge  
> Photographer:  
M. Monteaux

# Packaging

The UGICHROM range is available with a choice of packaging to optimise the protection of the product and ease of processing:

Extruded plastic sheath: Diameter 14 to 110 mm

Individual recyclable cardboard tube: Diameter 14 to 110 mm

Bulk packaging in layers in boxes, with or without separators

Option of continuous ink-jet marking on the plastic sheath

## The essential solution

to numerous high performance applications

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

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## Certifications





# UGITECH production plants

## Bars

UGITECH  
Avenue Paul Girod  
73403 UGINE Cedex  
FRANCE  
Tel. +33 (0)4 79 89 30 30  
Fax: +33 (0)4 79 89 34 34

UGITECH Italia  
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20068 PESCHIERA BORROMEO  
(MI)  
ITALY  
Tel. +39 02 54 74 34 14  
Fax: +39 02 54 74 34 30

## Wire rod

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73403 UGINE Cedex  
FRANCE  
Tel. +33 (0)4 79 89 30 30  
Fax: +33 (0)4 79 89 34 34

## Drawn wire

UGITECH  
BP 33  
58160 IMPHY  
FRANCE  
Tel. +33 (0)3 86 21 37 98  
Fax: +33 (0)3 86 21 31 03

UGITECH  
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# UGITECH

a team of 2000 working together for you around the world



[www.ugitech.com](http://www.ugitech.com)

