



Ugitech wire and profiles

Spring customized solution



Wire and profiles for spring applications

Ugitech is one of the main global players in the field of stainless steel and alloy long product.

Our added value:

- › Development/innovation of our products for each application.
- › Close collaboration between Customers/ Partners/Specifiers with a management team for each project.
- › A complete range of wire and profiles.
- › Reactivity and adaptability with two production plants: Ugitech Imphy (F), Ugitech TFA (I).
- › Competitiveness of our product range due to a full industrial integration (Upstream/ Downstream).

Sizes and shapes offered

Round wire rod

- › Matt 0.18 to 16 mm
- › Bright mechanical 0.90 to 5 mm

For other sizes, please contact us.

Shaped wires

- › Round-edged, flat-edged, square-edged flat bars...
- › Bright or coated 2 to 50 mm²

Special properties

Special quality with low dispersion of mechanical properties -C10-:

Advantages:

- › Consistency of geometrical properties (max. dispersion of 2 μ on dia. 0.3 to 1.8 mm).
- › Consistency of mechanical properties (max. dispersion on UTS: 40 N/mm² on a reel).
- › Consistency of slide properties.

This quality is particularly recommended for springs:

- › high coil ratio and high pitch (conical springs)
- › tight tolerances
- › large and very large production runs (Aerosol, Automotive)

Exclusive to Ugitech

HFS quality for springs requiring dynamic fatigue strength.

Example of use:

“Sleeve” type tension spring used under the following conditions:

- › Frequency of operation > 5Hz
- › Sinusoidal stress
 - min \varnothing : 0.23 x UTS
 - max \varnothing : 0.50 x UTS
 - Breaking rate: 0.015 %

Certification and conformance to Standards

Conformance to EN 10088-3, EN 10270-3 and ISO 6931.

Conformance to regulations: REACH, ROHS, GADSL, IMDS...

Certifications: ISO 9001: 2008, ISO 14001, ISO TS 16949 / ISO 9100.

Grades

Ugitech has developed a wide range of stainless steel and alloy grades that can withstand the most severe stress and use (chemical, high temperature, nuclear, medical, aeronautical, oil and gas industries...) conditions in:

- › Grades with high mechanical properties: SPRINOX[®], UGI[®] 209, UGIALLOY[®] PHYNOX^{®*}.
- › Grades with high fatigue strength UGI[®] 302 HFS.
- › Grades for special applications:
 - Medical: UGIALLOY[®] PHYNOX^{®*}, UGIALLOY[®] KC35N.
 - Cryogenic/non-magnetic: Grade1[®].
- › Grades with high corrosion resistance in wet environments: UGI[®] 4362, UGI[®] 4462, UGI[®] 316L.
- › Grades with stress corrosion resistance: UGI[®] 4362, UGI[®] 4462, UGI[®] 4062, UGI[®] 209, UGI[®] S904L, UGIALLOY[®] 276, to acids: UGIALLOY[®] C4...
- › Grades with high corrosion resistance at high temperatures: UGI[®] 301PH, UGIALLOY[®] HT750, UGIALLOY[®] HT90...

Trade name	EN	AISI	UNS	Chemical analysis						
				C	Si	Mn	Cr	Mo	Ni	Other
Austenitics										
UGI® 302	1.4310 (NS)	302	S30200	0.08	0.6	1.0	18.0	0.3	8.5	
SPRINOX®	1.4310 (HS)	302	S30200	0.10	1.8	1.3	17.5	0.7	7.5	
UGI® 302HFS	1.4310 (NS)	302	S30200	0.07	0.8	0.8	18.0	0.3	8.5	
UGI® 302SP	-	302	S30200	0.02	0.4	1.0	18.0	0.4	9.5	
UGI® 304H	1.4301	304	S30400	0.06	0.4	0.7	18.0	0.3	8.0	
UGI® 301PH	1.4568	631	S17700	0.08	0.5	0.9	16.5	0.1	7.5	Al = 0.9
UGI® 316	1.4401	316	S31600	0.06	0.4	1.4	17.5	2.0	11.0	
UGI® 316L	1.4404	316L	S31603	0.02	0.5	0.8	16.5	2.0	11.0	
UGI® 316Ti	1.4571	316Ti	S31635	0.02	0.6	1.5	17.0	2.1	11.0	Ti : 5 x C - 0.7
UGI® S904L	1.4539	904L	N08904	0.01	0.6	1.0	19.0	4.1	24.0	Cu = 1.3 / N = 0.05
Grade1®	1.4374	(202N)	-	0.08	0.5	9.5	18.0	0.2	5.5	N = 0.28
UGI® 209	-	-	S20910	0.02	0.7	5.0	21.5	2.1	12.0	N = 0.30
Duplex										
UGI® 4062	1.4062	-	S32202	0.02	0.5	2.0	23.0	0.1	2.5	N = 0.20
UGI® 4362	1.4362	-	S32304	0.02	0.4	1.0	23.0	0.3	4.0	N = 0.15
UGI® 4462	1.4462	-	S32205	0.02	0.4	1.5	23.0	3.0	5.0	N = 0.15
Alloys										
UGIALLOY® HT600	2.4816	B.166 AMS 5687	N06600	≤0.1	≤0.5	≤1.0	15.5	-	≥72	Fe = 8.0
UGIALLOY® 825	2.4858	S08825	N08825	≤0.02	0.5	1	22	2.7	40	Cu = 2.0 / Ti = 1.0
UGIALLOY® HT750	2.4669	AMS 5698 AMS 5699	N07750	0.08	≤0.5	≤1.0	15	-	Ni+Cr ≥70	Al = 0.7 / Co ≤1.0 Fe = 7.0 / Ti = 2.5 Nb+Ta = 1.0
UGIALLOY® 625	2.4856	AMS 5837	N06625	≤0.1	≤0.5	≤0.5	21.5	9	≥58	Fe ≤5.0 / Co ≤1.0
UGIALLOY® HT90	2.4632 2.4969	AMS 5829	N07090	≤0.13	≤1.0	≤1.0	20	-	Bal.	Co = 18.0 / Ti = 2.5 Al = 0.7 Nb+Ta = 1.0
UGIALLOY® 276	-	-	N10276	≤0.01	0.08	1	15.5	16	-	W = 3.5 / Fe = 5.5
UGIALLOY® C4	2.4610	-	N06455	0.01	0.05	0.5	16	16	Bal.	Co = 1.0 / Al = 0.2 Ti = 0.5
UGIALLOY® 718	2.4668	-	N07718	0.05	0.1	-	17	3	53	Fe = bal. / Al = 0.4 Ti = 0.9 / Nb = 5.0
UGIALLOY® PHYNOX®*	2.4711	ASTM 1058 AMS 5833 AMS 5834	R30003	≤0.15	≤1.2	2	20	7	16	Co = 40.0 Fe = 15.0 other ≤1.0
UGIALLOY® KC35N	2.4999	-	R30035	0.01	-	-	20	9.7	35	Co = 35

* PHYNOX® is an Aperam trademark

Packaging

	Rims SH 350	Rims SH 460	Reel T2	Reel T3	Reel T4	Layerwound reel	Basket	Metal reel ring
Diam.								
0.18								
0.25	35 kg	20 kg						
0.30								
0.35		35 kg						
0.40								
0.50								
0.60								60 kg
0.70		40 kg	150 kg					
0.80								80 kg
1.00								
1.15								
1.20								100 kg
1.25				350 kg	480 kg			
1.50								150 kg
1.90								
2.00								
3.20								160 kg
3.60						500 - 1000 kg	100 kg	
4.50								250 kg
5.50								
5.60								400 kg
16.0								

Some other types of packaging are possible from our Ugitech TFA mill (I), please contact us.

Scope of application

- › Aerosols: cosmetics/pharmaceuticals (valves and pumps).
- › Automotive: motor environment (turbos, exhausts, injectors...), steering, safety devices (brakes, airbags...).
- › Electronic and household appliances.
- › Industrial applications: petrochemical, mechanical...
- › Aeronautics.
- › Medical...

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Non contractual document

