

## Controlled expansion

# CRYOPHY G23

CRYOPHY G23 a iron-manganese alloys with a good compromise between a low thermal expansion coefficient, good weldability and corrosion resistance at low temperature. This alloy is your solution for liquified gas transportation and storage.

### International standards

ISO 23430

### Chemical composition

Elements (% weight)	Mn	Cr	Ni	Fe
Typical value	28	10	2	Bal

### Physical properties

Density (g/cm <sup>3</sup> )	Melting T° (°C - °F)	Curie T° (°C - °F)	Thermal expansion -196°C (10 <sup>-6</sup> .°K <sup>-1</sup> )	Resistivity (μΩcm)	Thermal conduction (W/°Km)	Specific heat (J.Kg <sup>-1</sup> .°K <sup>-1</sup> )
7.6	1450 - 2642	-	<8	-	-	-

### Mechanical properties (-196°C)

Temper	Tensile strength (MPa - KSI)	Yield strength (MPa - KSI)	Elongation %	Young's modulus (MPa - KSI)
Annealed	1000 - 145	900 - 130	60	200 - 29000

### Standard delivery & dimensions available

Form	Thickness (mm)	Width (mm)
Coil	0.30 to 3	10 to 600
Plates	8 to 25	1500 to 3000
Wire*	5.5 to 20	

\*contact us for technical information

### Available Forms

CRYOPHY G23 is delivered in cold rolled strips, plates and wire . Contact us for other specific formats.

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The data enclosed in this document are given as indicative values and correspond to our standard product.  
Different specific requirements are subject to discussion and formal approval by Aperam Alloys Imphy. For further information or special request, please contact us.

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