



Manufacturers of Metal Gaskets



TECHNICAL DATA SHEET

Spiral Wound Gaskets

Spiral Wound Gaskets are one of the most commonly used metal gaskets. They are extremely versatile and offer an excellent seal in a wide variety of applications. The spiral wound is manufactured by wrapping alternating layers of thin stainless steel and a soft gasket filler material such as graphite or PTFE. The V-shaped profile of the gasket provides resilience and a "spring like" characteristic that enhances the performance of the gasket.

Leader Gasket manufactures spiral wound gaskets in the full range of metal alloys and fillers. The company manufactures strictly to the standards as set forth by ASME B16.20 (formerly API 601) and DIN standards. Large diameter gaskets (up to 2,5 meters), standard dimensions, as well as special shapes and sizes are all available.

LG-13, consists of a metal guide ring and a spiral wound sealing element. The outer ring is often made of carbon steel but can be made of alloys for higher temperature and more severe medium applications.

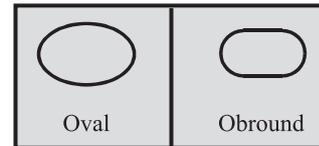
LG-13-IR is identical to the LG-13, however an inner ring has been inserted to enhance gasket performance. The inner ring is added to prevent the possibility of the gasket imploding into the pipe during installation, to protect the sealing element from extreme temperatures and mediums, and to reduce the possibility of failure. The inner ring is normally made of the same alloy as the winding.

LG-11 This style of gasket consist of the winding/sealing element only. It has no guide ring (centering ring) or inner ring. It is most commonly used in tongue and groove and male/female flanges.

LG-11-IR This gasket is similar to the gasket LG-11 however it has an inner ring. It's application is similar to the LG-11.

Profile	Cross Section
LG-13	
LG-13-IR	
LG-11	
LG-11-IR	

LG-14 This gasket is windings only but are manufactured for manholes and handholes.



Standard Thicknesses

Leader Gasket offers gaskets in a number of thicknesses. The standard LG-13, LG-13-IR, and LG-11-IR has inner and/or outer rings 3.0 mm thick and a winding of 4.5 mm. These gaskets can also be produced in thickness 2.5, 3.2, 4.5, 6.4, and 7.2 mm.

Available fillers

The fillers available for spiral wound gaskets include graphite, PTFE, MICA.

Graphite This filler is the most versatile filler offered. It can be used in almost all applications and temperatures save certain fuming acids. Leader Gasket uses only quality graphite from the market leaders in the United States and Europe.

PTFE This filler is used in applications where graphite is not acceptable. It is common with acids and other corrosive mediums.

Available Alloys

Leader Gasket offers spiral wound gaskets made from the common alloys. The table below presents the alloys available (in both ANSI and DIN nomenclature) and the standard color coding.

Ordering information

In addition to dimensions, the following information is required when placing an order with Leader Gasket for spiral wound for gaskets.

- 1) Profile type
- 2) Material of the outer ring (centering ring)
- 3) Type of steel for the winding
- 4) Filler material
- 5) Type of steel for the inner ring
- 6) Size (either standard or special)
- 7) Thickness of the gasket/sealing element

AISI	DIN	Color
304	1.4301	Yellow
316L	1.4404	Green
316Ti	1.4571	Green
321	1.4541	Turquoise
Carbon Steel	St37	Silver
Alloy 20	—	Black
Incoloy 800	1.4876	White
Hastelloy C	2.4819	Beige
Inconel 600	2.4816	Gold
Monel 400	2.4360	Orange
Incoloy 825	2.4858	White
Titanium	3.7025	Purple

Material Data Tables

This section presents material data tables that are useful in selecting and evaluation materials for gasket construction. Below is a cross reference and physical properties for metals that can be utilized in spiral wound gaskets.

Metals

Material (Trade Name)	DIN specification	DIN Number	AISI	Hardness HB/HV	Temp. Cel.		Volumetric mass (g/mc3)
					min.	max.	
Stainless Steel 304	X5 CrNi 1810	1.4301	304	130 - 180	-250	550	7.90
Stainless Steel 304 L	X3 CrNi 189	1.4306	304L	130 - 190	-250	550	7.90
Stainless Steel 309	X15 CrNiSi 2012	1.4828	309	130 - 190	-100	1000	7.90
Stainless Steel 316	X5 CrNiMo 17122	1.4401	316	130 - 190	-100	550	7.90
Stainless Steel 316 L	x2 CrNiMo 17132	1.4404	316L	130 - 190	-100	550	7.90
Stainless Steel 316 Ti	X10 CrNiMoTi 17122	1.4571	316Ti	130 - 190	-100	550	7.90
Stainless Steel 321	X6 CrNiTi 1810	1.4541	321	130 - 190	-250	550	7.90
Stainless Steel 347	X6 CrNiNb 1810	1.4550	347	130 - 190	-250	550	7.90
Monel 400	NiCu 30 Fe	2.4360	NO4400	110 - 150	-125	600	8.80
Inconel 600	NiCr 15 Fe	2.4816	NO6600	120 - 180	-100	600	8.40
Incoloy 800	X10NiCrAlTi 3220	1.4876	NO8800	140 - 220	-100	850	8.00
Incoloy 825	NiCr 21 Mo	2.4858	NO8825	120 - 180	-100	450	8.14
Hastelloy C276	NiMo 16Cr15W	2.4819	N10276	170 - 230	-200	450	8.90
Titanium	Ti 99,8	3.7025	-	110 - 140	-250	350	4.50

Fillers

Material	Temperature range		Colour of stripes
	min.	max.	
Graphite	- 200	550	grey
PTFE	-200	250	white
Leaderfite	-100	180	pink
MICA	—	1000	—

Due to the wide variety of possible installation and operating conditions, producer cannot draw a final conclusion for the gasket use in all installations/applications and therefore the data can not be used for the warranty claims. Please, do not hesitate to contact our staff to find the best solution for your application.