

DURLON® Spiral Wound Gaskets

SEALING SOLUTIONS

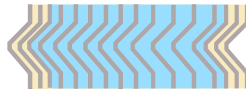
Durlon® Spiral Wound Gaskets (SWG) are made with an alternating combination of a preformed engineered metal strip and a more compressible filler material which creates an excellent seal when compressed. The engineered shape of the metal strip acts as a spring under load, resulting in a very resilient seal under varying conditions. The strip metallurgy and filler material can be selected to seal a wide range of applications. All Durlon® SWG styles have been engineered to precise manufacturing tolerances that allow for lower stress (bolt load) sealing compared to conventional spiral wound gaskets. All Durlon® SWGs are manufactured according to ASME B16.20 standards. Quality Assurance complies with API Specifications Q1 and ISO 9001 standards. Custom size capabilities are available up to 4m (157”).

Trusted Durlon Performance

Durlon® SWGs obtain their initial seal with very low seating stresses and provide a tighter seal than typical low stress spiral wound gaskets or other high temperature gaskets. Our advanced manufacturing process allows all Durlon® SWGs to perform better under low bolt stress applications while maintaining seal integrity under normal spiral wound gasket conditions.

Styles

Style D



- Sealing element only consisting of preformed engineered metal and more compressible filler material
- Commonly used in tongue and groove or male and female flanges
- Can also be supplied with an inner ring as Style DI

Style DR



- Sealing element (D) combined with a centering ring (R) which reinforces the gasket and acts as a compression stop
- Commonly used with standard raised face and full face type flanges
- Centering ring is epoxied which provides superior corrosion resistance compared to powder or liquid coating

Style DRI

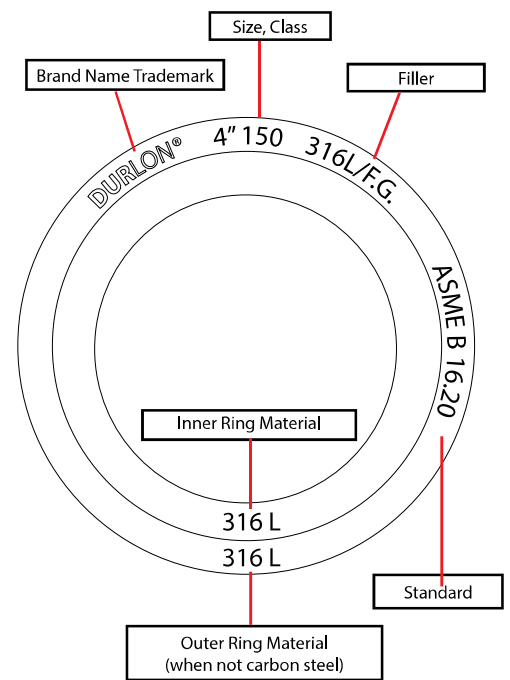


- Sealing element (D) combined with a centering ring (R) and an inner ring (I) which improves radial strength and protects the sealing element from erosion and inward bucking
- Commonly used with standard raised face and full face type flanges
- In accordance with ASME B16.20 (current version), inner rings for all gaskets are recommended for all sizes, materials, and classes.
- Recommended for all PTFE filled gaskets and the following:
 - Class 900-NPS 24” and larger
 - Class 1500-NPS 12” and larger
 - Class 2500-NPS 4” and larger
 - All flexible graphite gaskets unless otherwise requested by customer

Markings

Durlon® Style DR and DRI gasket centering rings (in carbon steel) are epoxy coated to provide protection against corrosion.

Durlon® SWGs are packaged with the utmost care to prevent damage during shipping to the job site.



m & Y Factors	m	Y, psi
Type D, DR & DRI, Graphite, Graphite/Mica & PTFE	2.8	5,800

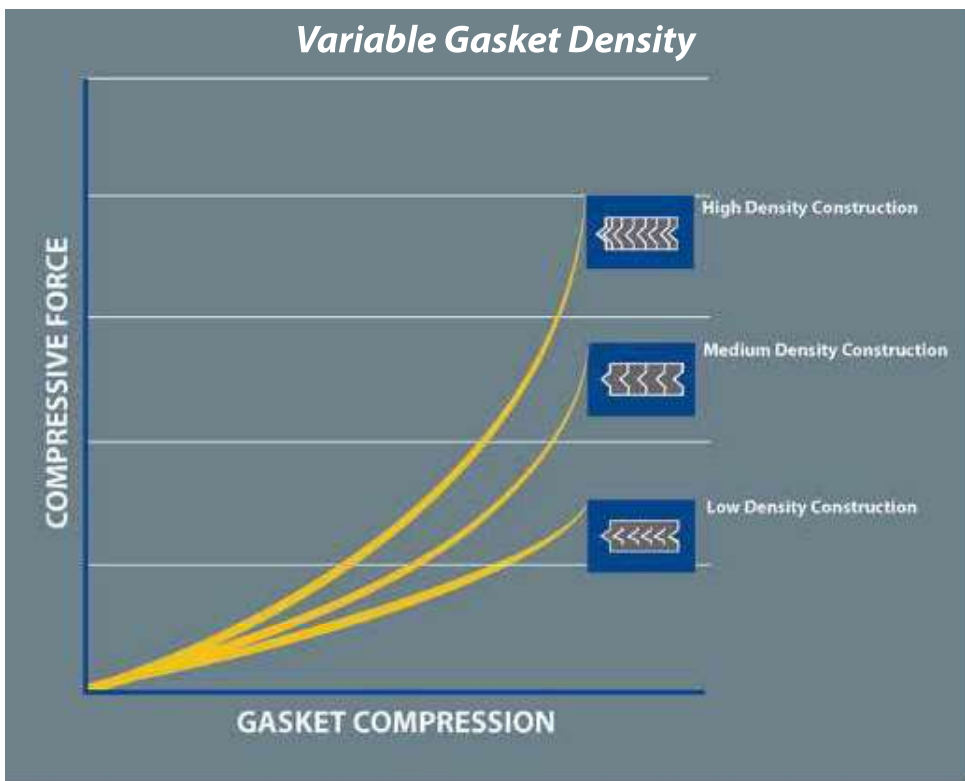
ROTT Factors	G _v , psi	a	G _v , psi
Type D, DR & DRI, Graphite, Graphite/Mica & PTFE	80	0.594	0.1
Type D, DR, DRI-Graphite/Mica	90	0.590	0.1
Type D, DR, DRI-PTFE	173	0.405	1.0

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SWG Gasket Density

During the manufacturing process of alternately winding the metal strip with the soft filler material under pressure and tension, the density of the resulting sealing element can be changed in order to suit specific gasket loading and sealability requirements. By combining different pressures, tension, and filler thicknesses, the loading requirements or compressive force needed to seat the gasket can vary significantly. Generally speaking, higher density sealing elements are used with higher pressure classes as they require higher compressive forces to establish a seal at optimum bolt loads.



Adapted from Fluid Sealing Association[®] gasket training presentation material.

Durlon[®] SWG Low-Stress Spirals

For applications in Class 150 and 300 where low seating stresses are required, it is common practice to require a specially made spiral wound gasket with appropriate gasket factors to suit the requirement. Durlon[®]'s solution is to manufacture all our Class 150 and 300 gaskets using a process that allows these gaskets to be seated at lower stresses while still performing as expected at traditional seating loads. This approach has several advantages including reduced costs and better product availability. For demanding low seating stress requirements, we can manufacture tailored sealing element density profiles to suit the application based on recommendations by our Applications Engineers.

Colour Coding Guidelines

WINDING

Guide Ring Colour*	Material	Min.		Max.		Code
		(°F)	(°C)	(°F)	(°C)	
Yellow	304 Stainless Steel	-320	-195	1,400	760	304
Green	316L Stainless Steel	-150	-100	1,400	760	316L
Maroon	317L Stainless Steel	-150	-100	1,400	760	317L
Turquoise	321 Stainless Steel	-320	-195	1,400	760	321
Blue	347 Stainless Steel	-320	-195	1,700	925	347
Silver	Carbon Steel	-40	-40	1,000	540	CRS
Black	20Cb-3 (Alloy 20)	-300	-185	1,400	760	A-20
Brown	HASTELLOY [®] B 2	-300	-185	2,000	1,090	HAST B
Beige	HASTELLOY [®] C 276	-300	-185	2,000	1,090	HAST C
White	INCOLOY [®] 800	-150	-100	1,600	870	IN 800
White	INCOLOY [®] 825	-150	-100	1,600	870	IN 825
Gold	INCONEL [®] 600	-150	-100	2,000	1,090	INC 600
Gold	INCONEL [®] 625	-150	-100	2,000	1,090	INC625
NO COLOUR	INCONEL [®] X750	-150	-100	2,000	1,090	INX
Orange	MONEL [®] 400	-200	-130	1,500	820	MON
Red	Nickel 200	-320	-195	1,400	760	NI
Purple	Titanium	-320	-195	2,000	1,090	TI

FILLER

Stripe Colour	Materials	Min.		Max.		Code
		(°F)	(°C)	(°F)	(°C)	
White	PTFE	-400	-240	500	260	PTFE
Grey	Flexible Graphite incl. Inhibited	-350	-212	950	510	F.G.
Pink	Mica Graphite	-350	-212	1,400	760	MICA-GRA
Light Blue	Phyllosilicate	-67	-55	1,800	1,000	ETG
Light Green	Ceramic	-350	-212	2,000	1,090	CER