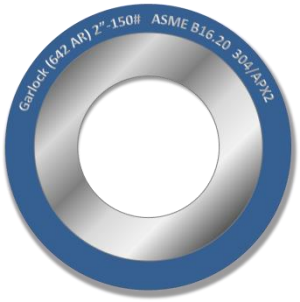
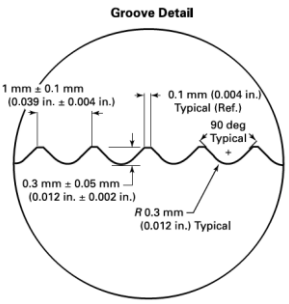
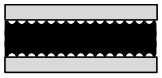
Garlock Kammprofile Gaskets

Garlock Kammprofile gaskets are high performance gaskets constructed of a machined metal core with a soft non-metallic facing material, and an optional outer ring (integral or floating). Garlock Kammprofiles are available in standard flange sizes/classes (per ASME B16.20) as well as custom dimensions for critical equipment such as heat exchangers and reactors. Kammprofiles are designed to handle pressure from full vacuum to class 2500#. The gaskets also provide improved conformability over double jacketed (DJ) and Ring Type Joint (RTJ) gaskets.

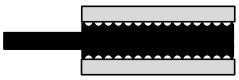




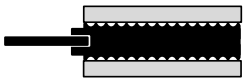
Configurations



642 A – Kammprofile core completely machined and serrated and then faced with a soft deformable sealing material.



642 AR – Kammprofile core machined and serrated with an integral outer ring for alignment. The serrated portion of the core is faced with a soft deformable sealing material.



642 AR2 – Kammprofile core machined and serrated with a floating outer ring for alignment (outer ring typically constructed of carbon steel or other suitable metal). The serrated portion of the core is faced with a soft deformable sealing material.

Available Facing Materials†

Material	Minimum Temperature*	Maximum Temperature*
PTFE	-400°F (-240°C)*	500°F (260°C)
GYLON®	-450°F (-268°C)*	500°F (260°C)
Flexible Graphite (APX-2)†	-350°F (-212°C)*	850°F (454°C)
THERMa-PUR™	N/A	1832°F (1000°C)*

*NOTE: Minimum and maximum temperature rating of the finished gasket may be limited by the metal(s) used in the gasket construction.
† Contact Garlock Applications Engineering at 800-448-6688 for values on facing materials not shown. Other grades of graphite available upon request.

Design Factors†

	Gasket Factors		Gasket Constants			Stress required for tightness		
Facing	M	Y (psi)	Gb (psi)	a	Gs (psi)	S 100 (psi)	S 1,000 (psi)	S 10,000 (psi)
Graphite (APX-2)	4.00	4,000*	368	0.4	0.28	2,324	5,838	14,664
THERMa-PUR™	10.00	5,000	1,737	0.264	52	5,861	10,766	19,778

* NOTE: Actual test results indicated y = 1,000 psi, which is consider too low for flange design purposes.
† Contact Garlock Applications Engineering at 800-448-6688 for values on facing materials not shown.

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Tolerances

	Outside Diameter Tolerances	Inside Diameter Tolerances
1/8” through 8”	+/- .031”	+/- .015”
10” to 24”	+/- .031”	+/- .031”
Over 24”	Contact Product Line	

Core Thickness / Tolerances

Nominal Thickness	Typical Thickness	Width Limits	Thickness Tolerance
1/8”	0.119”	3/16”	0.117” – 0.131”
3/16”	0.182”	¼”	0.172” – 0.188”

Temperature Limits & Color Coding for Metals (ASME B16.20)

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

Temperature Limits & Color Coding for Facing (ASME B16.20)

Material	Minimum		Maximum COT		Abbreviation	Guide Ring Edge Stripe Color Code
	°F	°C	°F	°C		
Ceramic	-350	-212	2,000	1,090	CER	Light Green
Flexible Graphite	-350	-212	850	454	F.G.	Gray
PTFE	-400	-240	500	260	PTFE	White
4122 THERMa-PUR™	-	-	1,832	1,000	4122	Light Blue

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