



# Sealing Solutions

## **RAMCORE HC ENGINEERING SPECIFICATIONS**

### **G-10/FR4 HC FLANGE ISOLATION GASKET KIT**

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**Ramco® Sealing Solutions** flange isolation gasket kits consists of all components necessary to isolate a flange. The RAMCORE HC style isolation gasket is manufactured from Special High Compression ¼" thick Nema grade G-10 glass epoxy material incorporating a Spring Energized Teflon Sealing element to prevent cold flow under high pressures. These kits come standard with two isolating Nema grade G-10 washers, two SAE zinc plated steel backup washers and one Nema grade G-10 sleeve tube for every bolt.

**Ramco® Sealing Solutions** manufactured the RAMCORE HC gasket kit to be an economical alternative for Semi Rough Service Applications, and are utilized as service gaskets to combat internal pressure surges from Natural Gas Extractions at elevated Temperatures!!!! Which makes the all composite RAMCORE HC Gasket perfectly suitable for API 3000 # and ANSI 2500# flanges in these applications.

#### **FLANGE ISOLATION GASKET KITS MATERIAL REQUIREMENTS:**

**RCECSTG10DWG10G10- ENFORCER FULL FACE ISOLATION GASKET KIT** shall consist of

"E" Full Face "RAMCORE HC" isolation gasket shall be manufactured from G-10/HC glass epoxy material with a Teflon Spring Energized Sealing Element

Nema Grade G10 isolating washers- 2 per bolt hole

SAE zinc plated steel backing washer- 2 per bolt hole

Nema Grade G10 isolating sleeve- 1 per bolt hole

**RCFCSTG10DWG10G10 ENFORCER RAISED FACE ISOLATION GASKET KIT** shall consist of  
"F" Raised Face "RAMCORE HC" isolation gasket shall be manufactured from G-10/HC glass epoxy material with a Teflon Spring Energized Sealing Element

Nema Grade G10 isolating washers- 2 per bolt hole

SAE zinc plated steel backing washer- 2 per bolt hole

Nema Grade G10 isolating sleeve- 1 per bolt hole

**Ramco® Sealing Solutions** Gasket kits are proudly manufactured in the USA and are fabricated from the highest quality American made materials possible to exceed industry standards.

**Ramco® Sealing Solutions**

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## Resiten® G10FR4 HC Performance Values

An all purpose flame retardant NEMA FR4 glass epoxy sheet with exceptional electrical and mechanical properties

<u>Properties</u>	<u>Test Condition</u>		<u>ASTM</u>	<u>Values</u>
Thickness				.125 inches
Tensile Strength:	Condition A	Lengthwise	D638	48,000 psi
		Crosswise		44,000 psi
Flexural Strength:	Condition A	Lengthwise	D790	77,000 psi
		Crosswise		73,000 psi
Compressive Strength:		Flatwise	D695	80000
Izod Impact (notched):	Condition A	Lengthwise	D256	15.9 ft.lb./in.
		Crosswise		9.7 ft.lb./in.
	D48/50	Lengthwise		15.4 ft.lb./in.
		Crosswise	D256	9.1 ft.lb./in.
Water Absorption			D570	.08% of weight
Specific Gravity			D792	1.96
U.L. Subject 94			UL94	VO
Dielectric Strength			D149	488 Vpm
Dielectric Breakdown:	Condition A		D149	80+ kV
	D48/50			45.2 kV
Arc Resistance:	Condition A		D495	126 seconds
	D48/50			117 seconds
Comparative Track Index (CTI)			U.L. 746A	440 Volts
U.L. HV Track Rate			U.L. 746A	2.2 mm/Min.
Permittivity, 1MHz:	Condition A		D150	4.79
	D24/23			4.89
Dissipation Factor, 1MHz:	Condition A		D150	0.016
	D24/23			0.016
Permittivity, 1KHz:	Condition A		D150	5.04
	D24/23			5.17
Dissipation Factor, 1KHz:	Condition A		D150	0.005
U.L. Hot Wire Ignition			U.L. 746A	120+ seconds
U.L. High Amp Ignition			U.L. 746A	200 + Exposure
Shear Strength	Condition A		D732-90	21,000 PSI
Coefficient of Thermal Expansion				1 x 10 <sup>-5</sup> cm/cm/°C
Thermal Conductivity = 7 x 10 <sup>-4</sup> /calories per sec. /sq.cm /degree C/cm of thickness				
Youngs Modulus				2,500,000 psi
U.L. temperature Index:		Electrical		130° C
		Mechanical		140° C

Coefficient of Friction with semi gloss finish is ≈ .25 to .300

Standard Sheet sizes are 36" x 48", 48" x 48", 48" x 72", & 48" x 96"

All values are average test results from typical production material. No warranty is implied or guaranteed and testing is recommended for each application.