ALKEGEN

HIGH PERFORMANCE

GASKET MATERIALS

FOR THE GLOBAL MARKETPLACE

Interface
Performance Materials
BY ALKEGEN

Who We Are

Interface Performance Materials by Alkegen is the leading manufacturer of sealing systems and engineered composite materials. For more than 100 years our advanced engineering expertise, global manufacturing excellence, innovative portfolio, and unique product validation capabilities allows us to be your strategic source for technically reliable gasket solutions. Our products include high performance materials utilized in heavy-duty diesel, automotive, small engine, industrial, and aligned Tiered-component manufacturing industries. Our extensive knowledge within these application spaces allows us to respond effectively to the ever-changing industry demands. This is framed via customized solutions that precisely fit the expectations for performance, reliability, and best overall value.

Technically Reliable Solutions

Our commitment to quality across all processes and all products consistently meet the quality standards of leading customer programs worldwide. Our design and validation processes include rigorous performance testing. Every material shipment is lab certified. Our highly experienced product and application engineers complete thousands of hours of functional testing validating material performance and long-term durability. The result: robust solutions that optimize costs and satisfy the most stringent requirements.

High Performance Grade Solutions

We offer more than 60 different gasket materials, encompassing a wide range of performance capabilities, price points and intended uses. Our unique, high performance grade product lines give customers many important business advantages including superior performance, reduced lead times, assured availability, fast delivery, and custom testing for specific applications.

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High Performance Grades										
Interface Product	Characteristics	Uses	Density g/cc (lb./cu. ft.) (min.)	ASTM F36 Compressibility, % at 34.5 MPa (5000 psi)	Minimum Recovery, %	ASTM F152 Minimum Tensile Strength MPa (psi), AMD	Composition		Classifi cation	ASTM F104 * Call-Out
							Fiber	Binder Type		
MP-15	A material with excellent low flange pressure sealability and bolt torque retention designed for heavy-duty applications.	Short duration maximum temperatures up to 205°C (400°F). Common applications include: heavy-duty applications including compressors and diesel engines.	1.54 (96)	13 - 25	50	10.34 (1500)	Synthetic Blend	Polychloroprene	Value Grade Roll	F729000M5
CMP-4000	A high performance, compressed material with excellent sealability and torque retention properties.	Short duration maximum temperatures up to 350°C (650°F). Common applications include: OEM and Industrial steam, water, oil and chemical sealing.	1.55 (97)*	5 - 15	50	< 0.8mm Gauge: 13.60 (1968) All other Gauges: 18.60 (2700)	Synthetic Blend	Fully Cured[1] Nitrile Butadiene Rubber	Value Grade Sheet	F722930E22M9
HFL-971	A high density material with superior mechanical strength in heavy-duty applications. It has exceptional tensile strength and crush, blowout and erosion resistance. It is also resistant to shear and friction damage in dynamic joints.	Short duration maximum temperatures up to 350°C (650°F). Common applications include: heavy-duty applications sealing transmission fluid, axle lube, oil, fuel, coolant, water and steam.	1.50 (93.6)	7 - 17	40	<0.4mm: 12.40 (1800) min All other gauges: 24.10 (3500) min.	Aramid	Fully Cured[1] Nitrile Butadiene Rubber	Value Grade Sheet	F729900E39M9
MP-2N	A material specifically engineered to conform well to irregular flange surfaces, with exceptional sealability for coolant, lubrication and induction systems.	Short duration maximum temperatures up to 205°C (400°F). Common applications include: automotive powertrain, marine and small engine applications to seal coolant, lubrication and induction systems.	1.35 (84)	13 - 25	35	8.28 (1200)	Synthetic Blend	Nitrile Butadiene	Value Grade Roll	F729000M9
PF-4N	A material with maximum fluid resistance and excellent sealability in a variety of environments and fl ange conditions.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: front cover, rear seal, water pump and intake manifold.	1.44 (90)	12 - 20	45	8.97 (1300)	Synthetic Blend	Fully Cured[1] Nitrile Butadiene	Value Grade Roll	F729000M9
VB-72	A high performance material with excellent erosion resistance, designed specifically for valve body and other heavy-duty applications with exposure to high fluid pressures and flow rates.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: heavy-duty applications with exposure to high fluid pressures and flow rates.	1.47 (92)	5 - 20	40	15.86 (2300)	Synthetic Blend	Fully Cured[1] Nitrile Butadiene	Value Grade Roll	F729000M9
CMP-4200	A solvent-free, high performance compressed material with exceptional sealability, torque retention and crush and blowout resistance. Suitable for steam, water, oil and chemical applications.	Short duration maximum temperatures up to 350°C (650°F). Common applications include: OEM and Industrial steam, water, oil and chemical sealing.	1.55 (97)	7 - 17	50	12 (1740)	Synthetic Blend	Fully Cured[1] Nitrile Butadiene/ Styrene Butadiene Rubber Blend	Value Grade Sheet	F729190E33M9
PF-4S	A material designed for various oil, air and coolant applications. It is a replacement for styrene butadiene rubber bound calendered sheet materials and offers improved oil sealability over nitrile butadiene bound materials.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: oil pan, front cover, intake manifold and rear seal.	1.44 (90)	9 - 23	45	8.62 (1250)	Synthetic Blend	Fully Cured[1] Styrene Butadiene	Value Grade Roll	F729000M9
HFL-781	A high density material used in heavy-duty oil sealing applications. The specification values are for 0.8mm (0.031") gauge material.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: heavy-duty oil sealing such as diesel engine oil pan and front cover.	1.63 (102)*	7 - 17	40	13.90 (2014)	Aramid	Controlled Swell[3] Styrene Butadiene/ Natural Rubber	Value Grade Sheet	F729900B5E09M9
PF - 5N	A high density material with added fuel and oil resistance. It is a recommended replacement for calendered or joint sheet materials.	Short duration maximum temperatures up to 230°C (440°F). Common applications include: front cover, rear seal, water pump and intake manifold.	1.44 (90)	5 - 20	55	14.48 (2100)	Synthetic Blend	Nitrile Butadiene	Roll	F729100E93M9
PF - 6S	A material designed for use in oil, coolant and air sealing applications.	Short duration maximum temperatures up to 230°C (440°F). Common applications include: oil pan, front cover, rear seal, water pump and intake manifold.	1.44 (90)	10 - 20	45	8.28 (1200)	Synthetic Blend	Controlled Swell[3] Styrene Butadiene	Roll	F723960M9
TS-9003	A material with good oil sealing characteristics at low flange pressure that conforms well to irregular flange surfaces. It is an alternative to high-swell compressed sheet materials.	Short duration maximum temperatures up to 350°C (650°F). Common applications include: oil pans and stamped cover gaskets.	1.44 (90)	15 - 30	20	6.90 (1000)	Aramid	Controlled Swell[3] Latent Cure[2] Styrene Butadiene	Roll	F729900E09M4
TS-9006	A heavy-duty, high density material.	Short duration maximum temperatures up to 350°C (650°F). Common applications include: oil, water and steam applications with high flange pressures.	1.52 (95)	5 - 20	40	10.34 (1500)	Aramid	Fully Cured[1] Styrene Butadiene	Roll	F729900E09M5
M-5201	A high density material with added resistance to oil and fuel.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: heavy-duty diesel engine.	1.55 (97)*	7 - 17	40	< 0.8mm Gauge: 13.80 (2000) All Other Gauges: 16.60 (2405)	Aramid	Fully Cured[1] Nitrile Butadiene	Roll	F729900B4E43M9

* ASTM F104 call outs must accompany, or refer to, the specification data sheet information to offer proper material call outs.

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Value Grades										
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							Fiber	Binder Type		
D-7201	A high density material with excellent mechanical strength, sealability and erosion resistance to high pressure, high volume fluid flow and impingement.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: heavy-duty automatic transmissions and various military gaskets.	1.50 (93.8)	5 - 20	40	15.86 (2300)	Aramid	Fully Cured[1] Nitrile Butadiene	Sheet	F729900B4E33M9
D-7280	A compressible material with added resistance to fuel, oil, coolant and water.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: low to moderate load fuel, oil, coolant and water sealing.	1.20 (75)	15 - 30	40	10.34 (1500)	Cellulose	Fully Cured[1] Nitrile Butadiene	Sheet	F729190B9E93M5
EMC-7201*	A composite structure of high density gasket facings chemically and mechanically fused to an expanded steel core. Available in 0.042", 0.048" and 0.060" gauges in a sheet size of 21" x 63" and 27" x 63" (usable area).	Short duration maximum temperatures up to 290°C (550°F). Common applications include: diesel engine structural joints, high pressure hydraulic joints and performance and racing engine applications.	2.0 (125)	14	50	3790 (5500) MD: 15.20 (2200)	Aramid	Fully Cured[1] Nitrile Butadiene	EnCore® Sheet	–
HTX-900*	A composite material consisting of graphite-coated, high-temperature facing material chemically and mechanically fused to an expanded steel core. Available in 0.043", 0.048", 0.060" and 0.093" gauges in a sheet size of 20" x 63" (usable area).	Designed for exhaust and heat shielding applications at typical internal combustion engine temperatures. Common applications include: exhaust manifold, header, collector and EGR system and other industrial sealing applications that require high strength, thermal integrity and anti-stick performance.	2.0 (125)	12	50	2750 (4000) MD: 15.20 (2200)	Hi-Temp Blend	Fully Cured[1] Nitrile Butadiene	EnCore® Sheet	–
N-8090	A reinforced cellulose fiber material with excellent oil resistance and good sealing characteristics.	Short duration maximum temperatures up to 180°C (350°F). Common Common applications include: water pump, transmission housing and fuel systems.	1.28 (80)	15 - 25	35	13.79 (2000)	Reinforced Cellulose	Latent Cure[2] Nitrile Butadiene	Roll	F724900E49M6
N-8092	A material with excellent crush resistance at high fl ange pressures and superior sealing properties with oil, fuel and water.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: automotive, small engine and compressor applications.	1.20 (75)	15 - 30	35	11.03 (1600)	Reinforced Cellulose	Nitrile Butadiene	Value Grade Roll	F729900E59M9
N-8094	A low density material that conforms well to irregular flange surfaces and has very good crush resistance at high flange pressures.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: oil, fuel and water flanges where moderate conformability is needed.	0.87 (54)	28 - 42	20	> 12mm Gauge: 6.90 (1000) All Other Gauges: 8.62 (1250)	Reinforced Cellulose	Nitrile Butadiene	Roll	F729900E99M9
NI-2085	A material resistant to oil, fuel, water and coolant with excellent strength and sealability characteristics.	Short duration maximum temperatures up to 190°C (375°F). Common applications include: oil, fuel, water and coolant applications.	1.36 (85)	10 - 20	50	13.79 (2000)	Reinforced Cellulose	Nitrile Butadiene	Roll	F723940E49M5
NI-2086	A material resistant to oil, fuel, water and coolant with excellent strength and sealability characteristics.	Short duration maximum temperatures up to 190°C (375°F). Common applications include: oil, fuel, water and coolant applications.	1.36 (85)	10 - 20	50	13.79 (2000)	Reinforced Cellulose	Fully Cured[1] Nitrile Butadiene	Roll	F723940E43M6

* Typical Values: Average values determined in accordance with ASTM F104 testing methods for Type 7 materials. Should not be used as a basis for material specifi cations. Material thickness of 0.8mm (0.031") used for all testing. All specifi cations developed on 3 sigma limits of physical property data.

- Fully Cured materials have rubber binders which are vulcanized during formation or in subsequent processes for added initial strength and fl uid resistance.
- Latent Cure materials are specially formulated for initial conformability which help to seal rough fl anges. The presence of heat in the application activates ingredients which vulcanize the material to provide the benefi ts of fully cured[1] products.
- Controlled Swell materials are latent cure[2] products which use Styrene Butadiene Rubber (SBR) binders. Signifi cant thickness increase occurs at the exposed internal edge of the gasket with many fl uids, dramatically improving sealability.The heat of application then vulcanizes the material to limit further swelling and provide fully cured[1] performance.

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Value Grades										
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							Fiber	Binder Type		
S-8091	A material used in many OEM and aftermarket oil and coolant applications.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: oil, fuel and low pressure steam sealing for low to moderate loads.	1.20 (75)	15 - 25	25	12.41 (1800)	Reinforced Cellulose	Controlled Swell[3] Latent Cure[2] Styrene Butadiene	Roll	F724900E09M9
TN-9004	A heavy-duty, high density material with good tensile strength and excellent resistance to fuel and oil.	Short duration maximum temperatures up to 350°C (650°F). Common applications include: general heavy-duty engine and transmission oil sealing.	1.52 (95)	5 - 20	45	17.24 (2500)	Aramid	Fully Cured[1] Nitrile Butadiene	Roll	F729100E33M9
TN-9005	A heavy-duty material that conforms well to irregular flange surfaces.	Short duration maximum temperatures up to 350°C (650°F). Common applications include: fuel/air delivery, transmission, and coolant systems.	1.28 (80)	15 - 30	25	10.34 (1500)	Aramid	Latent Cure[2] Nitrile Butadiene	Roll	F729900E59M5
TN-9014	A material with excellent fuel and oil resistance.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: water pumps and general automotive, light diesel and small engine oil sealing.	1.44 (90)	7 - 20	45	17.24 (2500)	Aramid / Cellulose	Fully Cured[1] Nitrile Butadiene	Roll	F729900E99M9
TN-9015	A material that conforms well to irregular flange surfaces and has excellent resistance to fuel and oil.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: fuel/air delivery, transmission, natural gas and coolant systems.	1.28 (80)	12 - 27	30	10.34 (1500)	Aramid / Cellulose	Latent Cure[2] Nitrile Butadiene	Roll	F729900E99M5
TS-9013	A material that conforms well to irregular flange surfaces.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: water and oil sealing.	1.36 (85)	12 - 25	25	8.28 (1200)	Aramid / Cellulose	Styrene Butadiene	Roll	F729900E09M9
TS-9016	A fully cured material for additional strength and degradation resistance.	Short duration maximum temperatures up to 290°C (550°F). Common applications include: water and oil sealing.	1.44 (90)	10 - 25	40	12.41 (1800)	Aramid / Cellulose	Fully Cured[1] Styrene Butadiene	Roll	F729900E09M9
NV-519	A material with excellent tensile strength, crush and erosion resistance against high volume fluid flow and impingement.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: automatic transmission valve body, pump, and accumulator/channel plate as well as carburetor and air compressor.	0.96 (60)	5 - 15	60	2759 (4000)	Cellulose	Nitrile Butadiene	Roll	F332949M8

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General Purpose Grades										
Interface Product	Characteristics	Uses	Density g/cc (lb./cu. ft.) (min.)	ASTM F36 Compressibility, % at 34.5 MPa (5000 psi)	Minimum Recovery, %	ASTM F152 Minimum Tensile Strength MPa (psi), AMD	Composition		Classifi cation	ASTM F104 * Call-Out
							Fiber	Binder Type		
2331	An environmentally compatible, low density gasket material formulated from recycled gasket materials.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: general, light-duty applications.	0.56 (35)	15 - 35	35	6.90 (1000)	Cellulose	Styrene Butadiene	Roll	F339177E73M4
CS-301	A low density and highly conformable material suitable for use with oil and water. Material contains cork particles as a filler.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: light-duty, general oil, water and air sealing.	0.61 (38)	25 - 40	30	4.83 (700)	Cellulose	Controlled Swell[3] Styrene Butadiene	Roll	F339996E99M9
HXF-650	HXF-650 is a high-temperature sealing and shielding material intended for use as a facing on tanged-steel core, or as a core material in metal-clad applications.	Typical uses include exhaust flange, header/manifold, down pipe, and collector gaskets, EGR, turbocharger, and catalytic converter gaskets, small engine head and muffler gaskets, and shield or shield liner applications.	0.78 - 1.04	(6.9 MPa) 15-35	25	3.1 (450)	Cellulose/Mineral Wool blend	Nitrile Butadiene	Roll	F339979E99M9
NI-4002	A facing material with low ignition loss and good torque retention properties that, when combined on perforated metal core, is intended for elevated temperature applications.	Common applications include: high temperature applications such as exhaust systems.	0.88 (55)	15 - 30	25	2.07 (300)	Hi-Temp Blend	Nitrile Butadiene	Roll	F339997E92M9
NV-565	A low density gasket material with good oil, fuel and water resistance that conforms well to irregular flange surfaces.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: carburetor, fuel system and water pump.	0.64 (40)	15 - 30	40	12.07 (1750)	Cellulose	Nitrile Butadiene/ Styrene Butadiene	Roll	F339997E93M9
RN-8011	A low density material providing excellent sealing properties for oil and water at low flange pressures.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: engine and transmission pan, water pump and environmental sealing.	0.61 (38)	35 - 60	15	1.52 (220)	Cellulose	Nitrile Butadiene	Roll	F339099E09M9
S-207	A material used in many aftermarket oil and coolant applications.	Short duration maximum temperatures up to 180°C (350°F). Common applications include: oil and coolant aftermarket sealing.	0.88 (55)	10 - 30	30	9.66 (1400)	Cellulose	Controlled Swell[3] Styrene Butadiene	Roll	F339999E99M9

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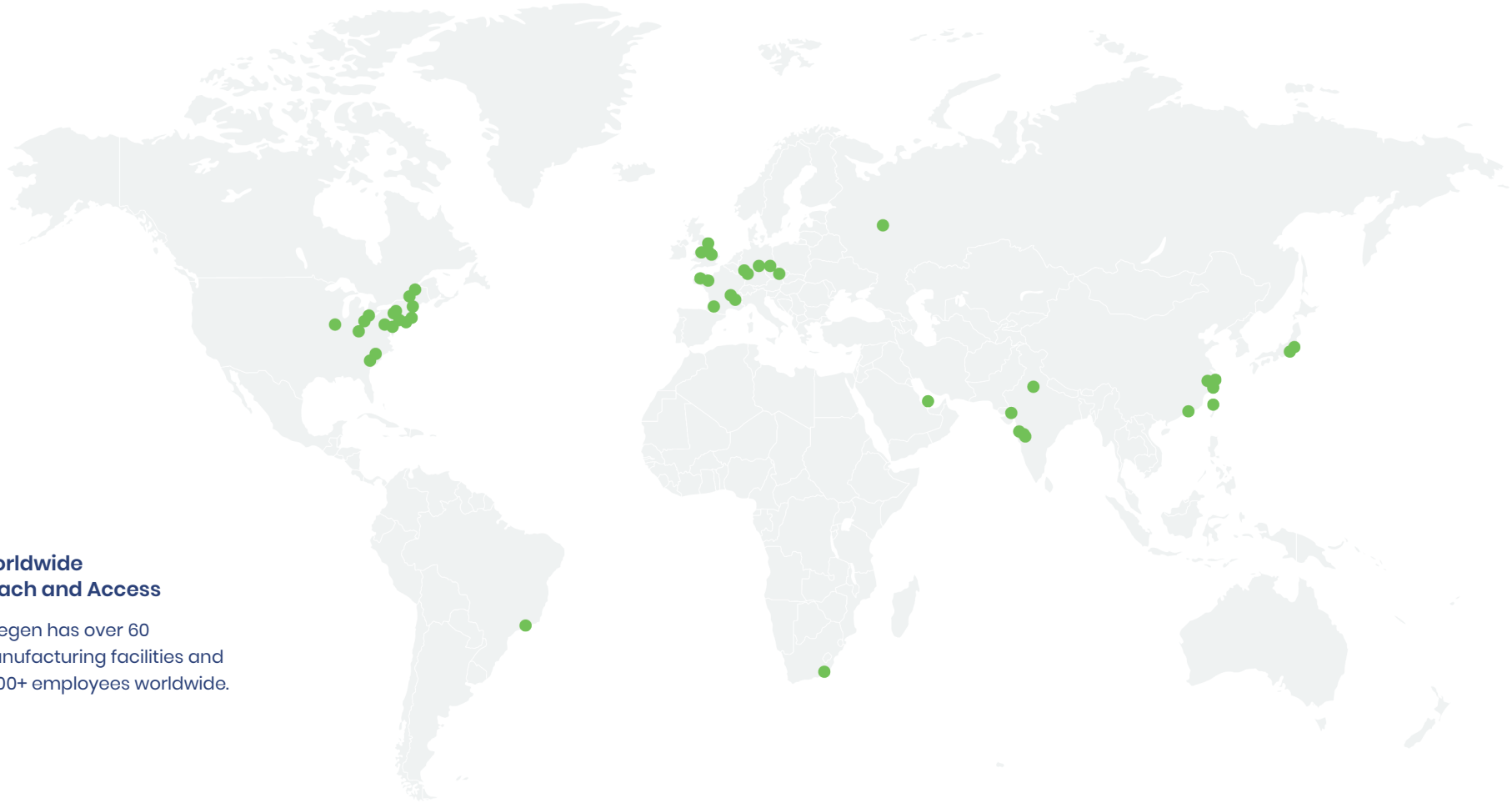

Worldwide Reach and Access

Alkegen has over 60 manufacturing facilities and 7,500+ employees worldwide.

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