ThreeBond

1100/1200 Series

Liquid Gaskets / Silicone-Based Adhesives, Sealants and Potting Agents

Liquid Gaskets

These are liquid sealants used for sealing inner fluids by applying them to the joint surfaces of various flanges, screws, etc., in automotive equipment and industrial equipment.
Highly reliable sealing is achieved by filling in and adhering to the minute clearance on the joint surface.
They are a liquid when applied, so metal joint surfaces touch each other, and there is almost no decrease in surface pressure due to vibration, etc. Therefore, they are durable and have excellent sealability.
Products with various material bases are available including synthetic resin-based, synthetic rubber-based, acrylate-based, acrylic emulsion-based, and silicone-based. There are also various reaction system grades including solvent vaporization, anaerobic curing, and moisture-curing.
Products include general-purpose types, and products for FIPG and CIPG.

* FIPG: Formed In Place Gasket
Liquid gasket that is applied on one surface and forms a seal by reactive curing after joining the other surface.
* CIPG: Cured In Place Gasket
Liquid gasket that is applied on one surface as a bead and forms a seal by curing before joining the other surface (sealing by surface pressure of the joint surface).

■ Applicable markets

Transportation Equipment | Electrical and Electronics | Industrial Materials and Public Works | Automotive Aftermarket

1101
This is a non-drying type solventless liquid gasket.
It has excellent water resistance and seawater resistance.
It is possible to use it together with solid sheet gaskets because there is almost no effect on rubber.
It is easy to remove, so it is optimal for sealing joints that require periodic disassembly and overhauling.

1102
This is a non-drying type, solvent-type liquid gasket.
It has excellent water resistance and oil resistance.
There are variations such as different colors.

1109J
This is a sealant for hot materials that contains liquid glass as its main component.
It can be used for vehicle mufflers in which high temperatures are applied, or in other high temperature junctions.
It has a heat resistance of approximately 400°C.

1121
This is a non-drying type solventless liquid gasket.
It has excellent water resistance and oil resistance.
It is possible to use it together with solid sheet gaskets because there is almost no effect on rubber.
It is easy to remove, so it is optimal for sealing joints that require periodic disassembly and overhauling. There is also a low-viscosity type available.

1130
This is a low-reaction, anaerobic-curing liquid gasket for tapered plugs.
It is a slow-curing type, so it is possible to apply it to many plugs using a tumbler, etc., and blocking between plugs does not occur for approximately 8 hours.
It has excellent oil resistance and coolant resistance. It is a low adhesive type.

1133J
This is an anaerobic curing type liquid gasket for flanges.
It conforms to flange movement because it is flexible after curing.
It has excellent oil resistance.

1141G
This is a water-based type liquid gasket for better working environment. Acrylic resin is the main component.
It has excellent chemical resistance. It is possible to use it together with solid sheet gaskets because there is almost no effect on rubber.
There are grades with different viscosities.

1153E
This is an olefin-based heat-curing liquid gasket for fuel cell batteries.
The cured material has rubber elasticity with excellent chemical resistance.
It has rubber elasticity, but also has excellent gas barrier property with hydrogen barrier property and low moisture permeability.
In addition to being used as a gas seal for fuel cell batteries, it can also be used for sealing water, coolants, methanol, etc.

1158
This is an alcohol-releasing single-component, moisture-curing, acrylic resin-based liquid gasket for FIPG.
It has excellent oil resistance, and can be used for sealing AT and CVT transmissions and gear cases.
It can also be used for high-grade oil.

1160
ThreeBond 1160 is a one-component, room temperature vulcanizing (RTV) non-silicone sealant.
Its main component is a silyl-based special polymer. The sealant cures when reacting with a trace of moisture in the air. After curing, the sealant becomes a rubber-like elastic body excelling in heat resistance and chemical resistance. This product does not intentionally contain low molecular weight cyclic siloxanes which cause electrical contact failures or organotin compounds regulated by the REACH Regulation.

1171G
Special synthetic rubber is the main component, and it forms a rubber-like elastic body with low moisture permeability through solvent vaporization.
It has excellent heat resistance and reflow soldering durability. In addition to resistance to nonaqueous electrolytic solution, it also has resistance to inorganic acid and bases. It can be used for lithium-ion batteries, capacitors, etc.

1206D
This is an alcohol type single-component, moisture-curing, modified silicone-based liquid gasket.
It is paintable, making it an optimal sealant for portions where painting is required after assembly.
There are grades with different colors and flowabilities.

1207B
This is an acetone type single-component, moisture-curing, silicone-based liquid gasket for FIPG.
It has a fast curing speed, and it becomes a flexible cured material, so it has excellent displacement conformability on joint surfaces.
In addition to engine oil pans, it can also be used for sealing coolants such as for water pumps.

1211
This is an oxime type single-component, moisture-curing, silicone-based liquid gasket.
It has low viscosity, so it is easy to apply.
It has excellent oil resistance and can be used together with solid sheet packings for engine oil pans in addition to general-purpose sealing applications.
There is also a high-viscosity type available.

1215

This is an oxime type single-component, moisture-curing, silicone-based liquid gasket.
It has relatively low viscosity, so it is easy to apply.
It has excellent chemical resistance and can be used as an FIPG for engine oil pans and gear cases, etc., in addition to general-purpose sealing applications.

1216

This is an oxime type single-component, moisture-curing, silicone-based liquid gasket for FIPG.
It has excellent chemical resistance, and in addition to engine oil pans and gear cases, it can also be used for sealing coolants such as for water pumps.
There are variations such as different functions.

1217G

This is an oxime type single-component, moisture-curing, silicone-based liquid gasket for FIPG.
It is a high elasticity type with excellent conformability to vibration.
It is a grade with high viscosity and excellent initial pressure resistance.

1217H

This is an oxime type single-component, moisture-curing, silicone-based liquid gasket for FIPG.
It is a high elasticity type with excellent conformability for vibration.
It is a grade with high viscosity and excellent initial pressure resistance.

1217M

This is an oxime type single-component, moisture-curing, silicone-based liquid gasket for FIPG.
It has excellent oily surface adhesiveness.
It has oil resistance, and it can be used for sealing engine oil pans, chain cases, etc.

1217N

This is an oxime type single-component, moisture-curing, silicone-based liquid gasket for FIPG.
It has excellent adhesion to magnesium alloys.
It has oil resistance, and it can be used for sealing engine oil pans and chain cases, etc.

About the single-component, moisture-curing, silicone-based liquid gasket reaction types

All single-component, moisture-curing, silicone-based liquid gaskets become rubber-like elastic bodies due to reaction with moisture in the air, but they are sorted into the following three types according to their reaction types.

Oxime type:
Gaskets that generate a small amount of oxime gas as a reactive byproduct. These are corrosive to copper alloys, so these are not suitable for electronic devices. They may cause cracks, etc., on thermoplastics.
They have excellent adhesion with various materials.

Acetone type:
Gaskets that generate a small amount of acetone gas as a reactive byproduct.
There is no corrosion on metals and no influence on most plastics.
They have a fast curing speed and have excellent airtightness and heat resistance.

Alcohol type:
Gaskets that generate a small amount of methanol gas as a reactive byproduct.
They have no influence on metals or plastics, but have weaker adhesion.

Liquid Gaskets
Property Table

Characteristics		Unit	1101	1102	1102D	1102G	1102J	1103B	1105	1105B
Main component			Vegetable oil	Alkyd-based resin	Alkyd-based resin	Alkyd-based resin	Alkyd-based resin	Cellulose-based acetate	NBR	NBR
Curing method			Non-drying	Non-drying	Non-drying	Non-drying	Non-drying	Solvent vaporization	Solvent vaporization	Solvent vaporization
Features			Seawater resistance	Water resistance Oil resistance	Water resistance Oil resistance	Water resistance Oil resistance	Water resistance Oil resistance	Dry Peelable	Dry Peelable	Dry Peelable
Appearance			Rust	Yellow	Silver	Yellow	Black	Black	Black	Silver
Viscosity		Pa•s	1070	7.0	6.9	6.9	7.0	3.4	3.5	3.5
Specific gravity			1.56	1.32	1.33	1.33	1.34	0.88	0.92	0.92
Non-Volatile Content		%	99.0	77.0	79.0	79.0	76.0	26.6	25.0	26.0
Tack free time		min	Non-drying	Non-drying	Non-drying	Non-drying	Non-drying	-	-	-
Physical characteristics after curing	State		Non-drying	Non-drying	Non-drying	Non-drying	Non-drying	Dry Peelable film	Dry Peelable film	Dry Peelable film
	Hardness		-	-	-	-	-	-	-	-
	Elongation rate	%	-	-	-	-	-	-	-	-
	Tensile strength	MPa	-	-	-	-	-	-	-	-
	Tensile shear bond strength (Iron)	MPa	-	-	-	-	-	-	-	-
	Tensile shear bond strength (Aluminum)	MPa	-	-	-	-	-	-	-	-
Pressure resistance	Room temperature	MPa	8.5	9.5	9.5	9.0	10.0	6.5	8.5	8.5
	80°C	MPa	4.0	7.5	7.5	7.0	7.0	2.5	6.5	6.5
	150°C	MPa	0.5	6.5	6.0	4.0	7.0	2.0	5.5	5.5
Chemical resistance Mass change rate	Water*1	%	-0.9	+1.0	+1.0	+1.0	-4.0	-2.3	+0.3	+0.3
	Gasoline*2	%	-33.3	-2.4	-2.4	-2.4	-4.0	-38.6	-5.2	-5.2
	Lubricating oil No.2*3	%	-	-	-	-	4.7	-23.4	-	-
Removability			Good	Difficult	Difficult	Difficult	Difficult	Good	Good	Good
Operating temperature range (Est.)		°C	-40 to 80	-40 to 150	-40 to 150	-40 to 150	-40 to 150	-40 to 150	-40 to 150	-40 to 150
Remark(s)			Good plastic resistance		Different color version of 1102		Different color version of 1102	Suited for relatively small joint surfaces	Suited for relatively small joint surfaces	Different color version of 1105

*1 : Immersion conditions 90°C×24h
*2 : Immersion conditions 50°C×24h
*3 : Immersion conditions 100°C×24h

* - : Unmeasured
* The value listed in the property table is an example of a measured value and is not the guarantee level.
* Before using, confirm the adequacy and safety for the relevant application.

1100/1200 Series

Liquid Gaskets

Property Table

Product name		1108	1109J	1109M	1111B	1111C	1117		1121	1121C		1130	1133C	1133J	1133K	1141G	1141H	1141J	1184	1184D	1184E	1184J	1184Y
Characteristics	Unit																						
Main component		Vinyl modified resin Natural resin	Liquid glass	Synthetic rubber	Natural resin Synthetic resin	Phenol resin Rosin modified resin	Fluorine-based resin		Saturated polyester resin	Saturated polyester resin		Acrylate	Acrylate	Acrylate	Acrylate	Acryl emulsion	Acryl emulsion	Acryl emulsion	Special synthetic rubber	Special synthetic rubber	Special synthetic rubber	Special synthetic rubber	Special synthetic rubber
Curing method		Solvent vaporization	Solvent evaporation reaction	Solvent vaporization	Solvent vaporization	Solvent vaporization	Mixture of two fluids		Non-drying	Solvent vaporization Non-drying		Anaerobic curing	Anaerobic curing	Anaerobic curing	Anaerobic curing	Vaporization	Vaporization	Vaporization	Solvent vaporization	Solvent vaporization	Solvent vaporization	Solvent vaporization	Solvent vaporization
Features		Used in combination with solid gaskets	Sealant for hot materials	Heat and Water resistance			Chemical resistance		Solventless	1121 Low viscosity		For tapered plugs	For flanges	For flanges	For flanges	Water-based type Nonflammable	Water-based type Nonflammable	Water-based type Nonflammable	Multi-use type Chemical resistance	Multi-use type Chemical resistance	Multi-use type Chemical resistance	Multi-use type Chemical resistance	Multi-use type Chemical resistance
Appearance		Brown	Grayish green	Black	Black	Black	Agent A Black	Agent B Milky White	Gray	Gray		White	Blue	Blue	Yellow	Gray	Gray	Gray	Gray	Cream	Black	Gray	Gray
Viscosity	Pa•s	0.75	Paste	5.0	5.3	4.5	57	55	330	11.0		50.0	100	100	250	15.0	0.9	10.0	9.5	29.0	8.5	6.5	9.5
Specific gravity		0.94	1.65	1.20	1.22	1.30	1.88	1.84	1.35	1.27		1.15	1.1	1.10	1.9	1.26	1.22	1.26	1.26	1.32	1.20	1.23	1.35
Non-Volatile Content	%	53.0	65.0	54.0	74.0	78.0	-	-	100	87.3		100	-	-	-	68.0	60.0	68.0	57.5	63.0	55.0	54.0	53.9
Tack free time	min	-	-	-	-	-	-		Non-drying	Non-drying		-	-	60 (Set time)	12 (Set time)	-	-	-	12	12	12	12	10
Physical characteristics after curing — State		-	Dry	Rubber-like	Dry	Dry	Rubber-like		Non-drying	Non-drying		Rubber-like	Rubber-like	Rubber-like	Rubber-like	-	-	-	Rubber-like	Rubber-like	Rubber-like	Rubber-like	Rubber-like
Physical characteristics after curing — Hardness		-	-	-	-	-	A38		-	-		-	-	-	-	-	-	-	A23	A22	A28	A22	-
Physical characteristics after curing — Elongation rate	%	-	-	-	-	-	400		-	-		-	-	-	-	-	-	-	1720	1000	700	1200	-
Physical characteristics after curing — Tensile strength	MPa	-	-	-	-	-	2.8		-	-		-	-	-	-	-	-	-	0.17	0.15	0.21	0.13	-
Physical characteristics after curing — Tensile shear bond strength (Iron)	MPa	-	5.2	-	-	-	-		-	-		-	11.0	11.0	17.0	-	-	-	3.3	-	-	-	-
Physical characteristics after curing — Tensile shear bond strength (Aluminum)	MPa	-	1.8	-	-	-	0.7		-	-		-	10.0	10.0	17.7 (Cured at 80°C)	-	-	-	2.7	-	-	-	-
Pressure resistance — Room temperature	MPa	8.5	9.0	10.0	9.5	8.0	-		9.0	9.0		11.0	-	-	10 or higher	10 or higher	10 or higher	10 or higher	10.0	10.0	10.0	10.0	10.0
Pressure resistance — 80°C	MPa	8.0	8.5	6.5	6.5	7.0	-		7.0	7.0		11.5	-	-	-	10 or higher	9.5	10 or higher	8.5	8.0	8.5	8.0	8.5
Pressure resistance — 150°C	MPa	4.0	-	6.0	0.5	4.0	-		6.5	6.5		4.0	-	-	-	9.5	8.5	9.0	8.5	8.0	8.0	8.0	-
Chemical resistance — Mass change rate — Water[*1]	%	-5.3	-	-0.4	-5.0	-2.0	0		-5.5	-5.5		+0.25	-	-	-	-2.3	-2.1	-2.5	-1.9	-1.9	-2.5	-3.0	-2.9
Chemical resistance — Mass change rate — Gasoline[*2]	%	+2.3	-	-21.3	-20.0	-4.2	3.5		-4.4	-4.4		-0.85	-	-	-	-7.5	-7.0	-7.2	-2.8	-1.8	-3.8	-3.7	-2.6
Chemical resistance — Mass change rate — Lubricating oil No.2[*3]	%	-	-	-3.8	-	-	-		-	-		-	-	-	-	-	-	-	-3.6	-1.1	-1.9	-	-
Removability		Good	Relatively difficult	Normal	Difficult	Difficult	Normal		Good	Good		Normal	Difficult	Difficult	Difficult	Good	Good	Good	Normal	Normal	Normal	Normal	Normal
Operating temperature range (Est.)	℃	-40 to 140	-40 to 400	-40 to 150	-40 to 150	-40 to 150	-30 to 150		-40 to 130	-40 to 130		-40 to 130	-40 to 130	-40 to 130	-40 to 130	-40 to 140	-40 to 140	-40 to 140	-40 to 150	-40 to 150	-40 to 150	-40 to 150	-40 to 150
Remark(s)		Used in combination with solid gaskets	Sealant for mufflers		Sealant for screws					1121 low-viscosity product diluted with alcohol						pH: 9.0	pH: 9.0	pH: 9.0	Superior acid and alkali resistance	Superior acid and alkali resistance	Superior acid and alkali resistance	Superior acid and alkali resistance	Superior acid and alkali resistance

*1 : Immersion conditions 90°C×24h
*2 : Immersion conditions 50°C×24h
*3 : Immersion conditions 100°C×24h

* - : Unmeasured
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Liquid Gaskets

Property Table

Characteristics	Unit	1153E	1156B	1156C	1156D	1158	1160
Main component		Olefin-based resin	Acryl rubber	Acryl rubber	Acryl rubber	Acryl rubber	Acryl rubber
Curing method		Heat-curing	Heat-curing	Heat-curing	Heat-curing	Moisture-curing Alcohol-releasing type	Moisture-curing Alcohol-releasing type
Features		Gas barrier property Low moisture permeability	Heat resistance Chemical resistance	Heat resistance Chemical resistance	Heat resistance Chemical resistance	Oil resistance	Heat resistance Chemical resistance
Appearance		Gray	Black	Black	Black	Black	Black
Viscosity	Pa·s	855	180	380	400	200	125
Specific gravity		1.04	1.20	1.24	1.18	1.35	1.46
Standard curing conditions		130°C× 90min	150°C× 30 min	150°C× 30 min	150°C× 30 min	-	-
Physical characteristics after curing: Hardness		A38	A6	A15	E31	A20	A46
Physical characteristics after curing: Elongation rate	%	320	275	300	300	300	460
Physical characteristics after curing: Tensile strength	MPa	2.4	1.2	1.7	1.3	1.8	2.0
Physical characteristics after curing: Moisture permeability (60°C×90%RH)	$g/m^2 \cdot 24h$	48	-	-	-	-	-
Removability		-	Normal	Normal	Normal	Normal	-
Operating temperature range (Est.)	℃	-	-30 to 150	-30 to 150	-30 to 150	-30 to 150	-
Remark(s)		Fuel cell For CIPG	Oil resistance, Good ATF properties	High-viscosity and high-thixotropic type of 1156B	Excellent flexibility and displacement conformity	One component moisture-curing acryl sealant, paintable type	Free from the intentional addition of low molecular cyclic siloxane and organostannic compounds, complies with REACH regulations

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* Before using, confirm the adequacy and safety for the relevant application.
* FIPG (Formed In Place Gasket)
* CIPG (Cured In Place Gasket)

Characteristics	Unit	1170H	1171G
Main component		Special synthetic rubber	Special synthetic rubber
Curing method		Solvent vaporization	Solvent vaporization
Features		Low moisture permeability Resistance to liquid electrolytes	Low moisture permeability Resistance to liquid electrolytes
Appearance		Blue	Colorless transparent
Viscosity	mPa·s	225	600
Specific gravity		0.87	0.79
Non-Volatile Content	%	8.8	5.6
Physical characteristics after curing: State		Rubber-like adhesive film	Rubber-like adhesive film
Physical characteristics after curing: Moisture permeability (40°C×95%RH)	$g/m^2 \cdot 24h$	6.8	6.8
Physical characteristics after curing: Moisture permeability (60°C×95%RH)	$g/m^2 \cdot 24h$	-	-
Chemical resistance (Mass change rate): Propylene carbonate	%	2.2	-1.9
Chemical resistance (Mass change rate): Gamma-Butyrolactone	%	2.2	-1.4
Chemical resistance (Mass change rate): Dimethoxyethane	%	2.9	2.1
Chemical resistance (Mass change rate): Potassium hydroxide (10%)	%	-	-
Chemical resistance (Mass change rate): Hydrochloric acid (10%)	%	-	-
Remark(s)		For Batteries	For Batteries

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1100/1200 Series

Liquid Gaskets

Property Table

Characteristics	Unit	1201E	1206C	1206D	1206E	1207B	1207C	1207D	1207F	1211	1211E	1211F	1211G	1211H	1212	1212D	1215	1215B	1215H	1216
Main component		Silicone	Modified Silicone	Modified Silicone	Modified Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone
Curing method		Solvent vaporization oxime type	Moisturecuring Alcohol type	Moisturecuring Alcohol type	Moisturecuring Alcohol type	Moisturecuring Acetone type	Moisturecuring Acetone type	Moisturecuring Acetone type	Moisturecuring Acetone type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type
Features		Solvent dilution type Low viscosity	Paintable Oil resistance	Paintable Oil resistance	Paintable Oil resistance	Fast-curing Cooling liquid resistance	Fast-curing Cooling liquid resistance	Fast-curing Cooling liquid resistance	Fast-curing Cooling liquid resistance	For general use Low viscosity	For general use Low viscosity	For general use Low viscosity	For general use Low viscosity	For general use Low viscosity	For general use High viscosity	For general use High viscosity	For general use Chemical resistance	For general use Chemical resistance	For general use Chemical resistance	Multi-grade
Appearance		Gray	Black	Gray	Gray	Black	Rust	Aluminum color	Aluminum color	White	White	Milky white	White	White	White	Aluminum color	Gray	Black	Ivory	Gray
Viscosity	Pa·s	3.6	-	-	72.0	250	200	200	-	70.0	5.0	70.0	4.3	63.0	300	300	75.0	85.0	70	-
Apparent viscosity (SOD)	Pa·s	-	90	80	-	100	70	70	180	-	-	-	-	-	100	100	20	20	20	120
Specific gravity		1.18	1.45	1.46	1.43	1.01	1.47	1.46	1.45	1.01	1.05	1.04	1.04	1.03	1.04	1.05	1.50	1.45	1.53	1.40
Tack free time	min	105	30	5	16	3	3	5	5	40	60	40	35	16	7	7	10	11	30	5
Physical characteristics after curing: Hardness		A40	A45	A41	A33	A30	A60	A60	A56	A26	A25	A24	A20	A21	A30	A30	A50	A40	A52	A60
Physical characteristics after curing: Elongation rate	%	250	400	470	350	400	200	170	190	300	200	300	250	280	300	300	320	380	310	240
Physical characteristics after curing: Tensile strength	MPa	2.5	2.0	2.2	1.8	1.9	4.2	4.0	3.7	2.5	1.0	2.5	1.8	1.9	2.0	2.0	1.2	1.2	1.32	3.0
Physical characteristics after curing: Tensile shear bond strength (Iron)	MPa	-	2.3	-	-	1.6	1.7	2.0	2.3	-	0.8	-	-	-	-	1.7	0.9	0.9	1.0	2.3
Physical characteristics after curing: Tensile shear bond strength (Aluminum)	MPa	-	-	2.3	1.7	1.1	1.7	2.0	2.2	1.4	0.8	1.2	0.8	1.0	1.0	1.5	0.8	0.8	1.0	2.2
Pressure resistance: Initial (When uncured) clearance: 0.2mm	MPa	-	-	0.14	0.14	0.18	0.14	0.14	0.23	0.04	0.01	0.04	0.01	0.04	0.15	0.10	0.05	0.05	0.05	0.21
Pressure resistance: Initial (When uncured) clearance: 0.5mm	MPa	-	0.11	-	-	0.07	0.05	0.05	0.12	0.01	-	0.01	-	0.01	0.06	0.03	0.01	0.01	0.01	0.10
Pressure resistance: After curing (Room temperature)	MPa	10	-	-	-	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher
Chemical resistance: Appropriateness: Engine oil		-	△ (Lower heat resistance)	△ (Lower heat resistance)	△ (Lower heat resistance)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Chemical resistance: Appropriateness: Gear oil		-	△ (For agricultural machines)	△ (For agricultural machines)	△ (For agricultural machines)	×	×	×	×	×	×	×	×	×	×	×	○	○	○	○
Chemical resistance: Appropriateness: AT oil		-	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	△
Chemical resistance: Appropriateness: MT oil		-	×	×	×	×	×	×	×	×	×	×	×	×	×	×	○	○	○	○
Chemical resistance: Appropriateness: Coolant		-	×	×	×	○	○	○	○	×	×	×	×	×	×	×	×	×	×	△
Chemical resistance: Mass change rate: Water[*1]	%	-0.1	-	-	-	-0.6	-0.4	-	-	-0.5	-	-	-	-	+1.3	+1.3	-1.0	-0.4	-0.4	-
Chemical resistance: Mass change rate: Gasoline[*2]	%	-7	-	-	-	+5.0	-0.3	-	-	-20.2	-	-	-	-	-15.1	-15.1	-5.0	-4.7	-4.7	-
Chemical resistance: Mass change rate: Lubricating oil No.2[*3]	%	4.0	-	-	-	-6.0	+5.8	-	-	+5.0	-	-	-	-	+5.0	+5.0	+5.0	+4.9	+4.9	-
Removability		Good	Normal	Normal	Normal	Relatively difficult	Good	Good	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Operating temperature range (Est.)	℃	-60 to 200 (250)	-40 to 120	-40 to 120	-40 to 120	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)
Remark(s)		Brush application possible May be used as a coating on solid packings	For FIPG farm equipment improved thermal degradation	FIPG: agricultural machines	FIPG: agricultural machines	FIPG: Engine oil and Cooling liquid sealing UL94-HB certified product	FIPG: Engine oil and Cooling liquid sealing	FIPG: Engine oil and Cooling liquid sealing Different color version of 1207C	FIPG: Engine oil and Cooling liquid sealing	For general use Engine oil pan Used with packing	Low viscosity version of 1211	Different color version of 1211	Better nylon adhesion than 1211E	Better nylon adhesion than 1211	For general use Engine oil pan sealing	For general use Engine oil pan sealing Different color version of 1212	FIPG: Engine oil pan and Gear case sealing	FIPG: Engine oil pan and Gear case sealing Different color version of 1215	FIPG: Engine oil pan and Gear case sealing Different color version of 1215	FIPG: Engine oil pan, AT case, Gear case and Cooling liquid sealing

*1 : Immersion conditions 90℃×24h
*2 : Immersion conditions 50℃×24h
*3 : Immersion conditions 100℃×24h

* - : Unmeasured
* The value listed in the property table is an example of a measured value and is not the guarantee level.
* Before using, confirm the adequacy and safety for the relevant application.
* FIPG: Formed In Place Gasket

1100/1200 Series

Liquid Gaskets

Property Table

Product name		1216B	1216C	1216E	1216J	1217	1217B	1217C	1217D
Characteristics	Unit								
Main component		Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone
Curing method		Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type
Features		Mission oil resistance	Mission oil resistance	Multi-grade Fast-curing	Chemical resistance CVT fluid resistance	Chemical resistance ATF® resistance	Chemical resistance ATF® resistance	Chemical resistance ATF® resistance	Engine oil Low foamability
Appearance		Black	Light Rust	Gray	Rust	Gray	Rust	Black	Gray
Viscosity	Pa·s	-	-	-	-	-	-	-	-
Apparent viscosity (SOD)	Pa·s	120	170	215	95	140	150	150	120
Specific gravity		1.50	1.48	1.36	1.61	1.47	1.45	1.50	1.51
Tack free time	min	20	5	6	13	20	20	20	10
Physical characteristics after curing: Hardness		A50	A48	A57	A61	A57	A56	A52	A52
Physical characteristics after curing: Elongation rate	%	500	470	300	250	400	350	320	400
Physical characteristics after curing: Tensile strength	MPa	2.0	2.1	3.3	1.8	2.1	1.9	2.0	1.8
Pressure resistance: Tensile shear bond strength (Iron)	MPa	-	1.1	-	1.1	-	-	-	-
Pressure resistance: Tensile shear bond strength (Aluminum)	MPa	1.7	1.3	2.5	1.1	2.3	1.7	1.7	1.7
Pressure resistance: Initial (When uncured) clearance: 0.2mm	MPa	0.17	0.18	0.25	0.20	0.18	0.20	0.21	0.17
Pressure resistance: Initial (When uncured) clearance: 0.5mm	MPa	0.07	0.06	0.10	0.09	0.07	0.10	0.10	0.09
Pressure resistance: After curing (Room temperature)	MPa	10 or higher	-	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher
Chemical resistance: Appropriateness: Engine oil		○	○	○	○	○	○	○	○
Chemical resistance: Appropriateness: Gear oil		△	△	○	△	△	△	△	×
Chemical resistance: Appropriateness: AT oil		○	○	△	○	△	○	○	×
Chemical resistance: Appropriateness: MT oil		○	○	○	○	○	×	×	×
Chemical resistance: Appropriateness: Coolant		×	×	△	×	×	×	×	×
Chemical resistance: Mass change rate: Water[*1]	%	-	-	-	-	-	-	-	-
Chemical resistance: Mass change rate: Gasoline[*2]	%	-	-	-	-	-	-	-	-
Chemical resistance: Mass change rate: Lubricating oil No.2[*3]	%	-	-	-	-	-	-	-	-
Removability		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Operating temperature range (Est.)	℃	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)
Remark(s)		FIPG: AT case and CVT case sealing High viscosity version of 1215B	FIPG: AT case and CVT case sealing Different color version of 1216B	FIPG: Engine oil pan, AT case, Gear case and Coolant sealing	FIPG: Engine oil pan, AT case and Gear case sealing	FIPG: Engine oil pan, AT case and Gear case sealing	FIPG: Engine oil pan, AT case and Gear case sealing	FIPG: Engine oil pan, AT case and Gear case sealing	FIPG: Engine oil pan and Engine oil sealing Low-foaming ability

Product name		1217E	1217F	1217G	1217H	1217M	1217N	1217P	1227D	1280	1280B	1281B
Characteristics	Unit											
Main component		Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone
Curing method		Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring alcohol type	Moisturecuring oxime type	Moisturecuring oxime type	Moisturecuring oxime type
Features		ATF® resistance ATF® oil foamability	High-grade engine oil	High elasticity High-grade engine oil	High elasticity High-grade engine oil	High elasticity Oily surface adhesiveness	High elasticity Magnesium adhesion	High elasticity Oily surface adhesiveness Compliant with MEKO regulations	Compliant with MEKO regulations Coolant resistance	Engine oil resistance	Initial pressure resistance	ATF® resistance
Appearance		Rust	Gray	Gray	Dark gray	Black	Gray	Black	Black	Aluminum color	Gray	Rust
Viscosity	Pa·s	-	-	-	-	-	-	-	-	-	-	-
Apparent viscosity (SOD)	Pa·s	140	210	301	330	280	280	260	200	100	200	115
Specific gravity		1.50	1.39	1.37	1.36	1.37	1.45	1.36	1.46	1.04	1.06	1.45
Tack free time	min	5	6	5	5	7	6	6	90	6	3	10
Physical characteristics after curing: Hardness		A53	A60	A60	A51	A45	A35	A57	A33	A30	A33	A60
Physical characteristics after curing: Elongation rate	%	260	210	430	470	500	440	430	410	400	480	220
Physical characteristics after curing: Tensile strength	MPa	1.6	3.0	2.6	2.6	2.5	3.1	2.4	2.3	2.0	2.5	4.8
Pressure resistance: Tensile shear bond strength (Iron)	MPa	1.3	1.9	2.1	2.3	-	2.6	-	2.3	1.4	1.8	2.0
Pressure resistance: Tensile shear bond strength (Aluminum)	MPa	1.4	1.9	2.0	2.3	1.6	2.7	1.9	2.2	1.4	2.0	2.0
Pressure resistance: Initial (When uncured) clearance: 0.2mm	MPa	0.20	0.34	-	-	-	-	-	0.19	0.13	0.17	0.15
Pressure resistance: Initial (When uncured) clearance: 0.5mm	MPa	0.10	0.14	0.10	0.15	-	0.15	-	-	0.06	0.13	0.06
Pressure resistance: After curing (Room temperature)	MPa	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	10 or higher	-	-	10 or higher	10 or higher	10 or higher
Chemical resistance: Appropriateness: Engine oil		○	○	○	○	○	○	○	○	○	○	△
Chemical resistance: Appropriateness: Gear oil		×	×	×	×	×	×	×	×	×	×	×
Chemical resistance: Appropriateness: AT oil		○	×	×	×	×	×	×	×	×	×	○
Chemical resistance: Appropriateness: MT oil		○	×	×	×	×	×	×	×	×	×	×
Chemical resistance: Appropriateness: Coolant		×	○	×	×	×	×	×	○	×	×	×
Chemical resistance: Mass change rate: Water[*1]	%	-	-	-	-	-	-	-	-	-	-	-
Chemical resistance: Mass change rate: Gasoline[*2]	%	-	-	-	-	-	-	-	-	-	-	-
Chemical resistance: Mass change rate: Lubricating oil No.2[*3]	%	-	-	-	-	-	-	-	-	-	-	-
Removability		Normal	Good	Relatively difficult	Relatively difficult	Normal	Normal	Normal	Normal	Good	Good	Normal
Operating temperature range (Est.)	℃	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)	-60 to 200 (250)
Remark(s)		FIPG: Engine oil pan, AT case and AT oil sealing Low ATF foaming	FIPG: Engine oil pan for coolant sealing	FIPG: Engine oil pan sealing Excellent initial pressure resistance	FIPG: Engine oil pan sealing Excellent initial pressure resistance	FIPG: Engine oil pan sealing	FIPG: Engine oil pan sealing	FIPG: Engine oil pan sealing	FIPG: Engine oil pan for coolant sealing	FIPG: Engine oil pan sealing	FIPG: Engine oil pan sealing Thickened agent version of 1280	FIPG: AT case sealing

*1 : Immersion conditions 90℃×24h
*2 : Immersion conditions 50℃×24h
*3 : Immersion conditions 100℃×24h

* - : Unmeasured
* The value listed in the property table is an example of a measured value and is not the guarantee level.
* Before using, confirm the adequacy and safety for the relevant application.
* FIPG: Formed In Place Gasket

Liquid Gaskets
Property Table

Product name			1281D	1282B
Characteristics		Unit		
Main component			Silicone	Silicone
Curing method			Moisturecuring oxime type	Moisturecuring acetone type
Features			Gear oil resistance	Initial pressure resistance Liquid coolant resistance
Appearance			Gray	Black
Viscosity		Pa•s	-	-
Apparent viscosity (SOD)		Pa•s	150	200
Specific gravity			1.41	1.07
Tack free time		min	4	3
Physical characteristics after curing	Hardness		A65	A46
	Elongation rate	%	200	330
	Tensile strength	MPa	3.0	3.3
	Tensile shear bond strength (Iron)	MPa	1.8	1.8
	Tensile shear bond strength (Aluminum)	MPa	2.1	1.7
Pressure resistance	Initial (When uncured) clearance: 0.2mm	MPa	0.11	0.11
	Initial (When uncured) clearance: 0.5mm	MPa	0.05	0.06
	After curing (Room temperature)	MPa	10 or higher	10 or higher
Chemical resistance	Appropriateness: Engine oil		○	△
	Appropriateness: Gear oil		○	×
	Appropriateness: AT oil		×	×
	Appropriateness: MT oil		○	×
	Appropriateness: Coolant		×	○
	Mass change rate: Water[*1]	%	-	-
	Mass change rate: Gasoline[*2]	%	-	-
	Mass change rate: Lubricating oil No.2[*3]	%	-	-
Removability			Normal	Normal
Operating temperature range (Est.)		℃	-60 to 200 (250)	-60 to 200 (250)
Remark(s)			FIPG: Differential gear sealing	FIPG: Engine oil pan for coolant sealing

*1 : Immersion conditions 90℃×24h
*2 : Immersion conditions 50℃×24h
*3 : Immersion conditions 100℃×24h

* - : Unmeasured
* The value listed in the property table is an example of a measured value and is not the guarantee level.
* Before using, confirm the adequacy and safety for the relevant application.

Silicone-Based Adhesives, Sealants and Potting Agents

These are single-component type silicone adhesives and sealants. They can be used for various purposes including bonding, sealing, and dampproof coatings for different fields such as for electric and electronic devices.
The curing reaction occurs from the moisture in the air when it is squeezed from the container, and it becomes a rubber-like elastic body.
They have a fast curing speed, the surface cures at room temperature and normal humidity (25℃ / 50%RH) after ten minutes (tack free), and they reach a cured thickness of 1mm or greater after 2 to 3 hours.
The rubber elasticity of the cured material is maintained over a wide temperature range from -60℃ to 250℃ (approx.) (300℃ for heat-resistant type). They have excellent adhesion, so they can bond to most materials.
There are two reaction types; the alcohol type (generates a small amount of methanol gas as a reactive byproduct) and the acetone type (generates acetone gas). Neither type is corrosive to metals such as electric-contact metals. They also do not dissolve or cause cracks on most plastics.
All grades of the 1220 Series are low-molecular siloxane-reduced products, so they do not cause electrical contact failures.

■ Applicable markets

Transportation Equipment | Electrical and Electronics | Industrial Materials and Public Works | Automotive Aftermarket

1220G 1220H

This is a paste-like fluid type product.
It is the alcohol type, so there is no influence such as corrosion on metals and plastics.
It has excellent adhesion with metals, glass, and plastics.
It can be used at a temperature range of -60℃ to 250℃ (approx.), and for continuous use, the heat resistance is about 180℃.
It has excellent electric insulation.
1220G is milky white (translucent), and 1220H is white.

1221G 1221H

This is a paste-like non-fluid type with excellent padding ability due to its non-fluidity during application.
It is the alcohol type, so there is no influence such as corrosion on metals and plastics.
It has excellent adhesion with metals, glass, and plastics.
It can be used at a temperature range of -60℃ to 250℃ (approx.), and for continuous use, the heat resistance is about 180℃.
It has excellent electric insulation.
1221G is milky white (translucent), and 1221H is white.

1222C

This is an incombustible type certified according to incombustibility standard UL94V-0.
It is a gray non-fluid paste with excellent padding ability due to its non-fluidity during application.
It is the alcohol type, so there is no influence such as corrosion on metals and plastics.
It has excellent adhesion with metals, glass, and plastics.
It can be used at a temperature range of -60℃ to 250℃ (approx.), and for continuous use, the heat resistance is about 180℃.
It has excellent electric insulation.

1224G

This is milky white (translucent) ultra-fluid type with excellent flowability and leveling ability during application.
It is the alcohol type, so there is no influence such as corrosion on metals and plastics.
It has excellent adhesion with metals, glass, and plastics.
It can be used at a temperature range of -60℃ to 250℃ (approx.), and for continuous use, the heat resistance is about 180℃.
It has excellent electric insulation.

1225B

This has high thermal conductivity and excellent heat dissipation.
It is a white fluid paste.
It can be used for heat dissipation and insulation of various electronic devices such as switching power supplies, power ICs, and lighting inverters.
It is the alcohol type, so there is no influence such as corrosion on metals and plastics.
It can be used at a temperature range of -60°C to 250°C (approx.), and for continuous use, the heat resistance is about 180°C.
It has excellent electric insulation.

1225C

This has high thermal conductivity and excellent heat dissipation.
It is a gray fluid paste.
It can be used for heat dissipation and insulation of various electronic devices such as switching power supplies, power ICs, and lighting inverters.
It is alcohol type with excellent electric insulation.
Low-molecular siloxane, which causes electrical contact failures, is reduced.

1207B

It is a black non-fluid type.
It is the acetone type, so there is no corrosiveness with metals, and almost no influence on plastics.
It has excellent adhesion with metals and plastics.
It can be used at a temperature range of -60°C to 250°C (approx.), and for continuous use, the heat resistance is about 180°C.
The cured material is soft and it can conform to the movement of the substrate. It has excellent heat resistance and moisture resistance.
* It cannot be used for insulation, as it has low electrical resistance.

1208 1208B 1208C

This is a white type adhesive sealant for electric and electronic devices.
It is the acetone type, so there is no corrosiveness with metals, and almost no influence on plastics.
It has excellent adhesion with metals, glass, and plastics.
It can be used at a temperature range of -60°C to 250°C (approx.), and for continuous use, the heat resistance is about 180°C.
It has excellent electric insulation.
1208 is a medium-viscosity fluid paste, 1208B is a low-viscosity fluid paste, and 1208C is a non-fluid paste.
* It is not a low-molecular siloxane-reduced product.

1209

It is a highly heat-resistant type with excellent heat resistance.
It is a black non-fluid type with excellent padding ability due to its non-fluidity during application.
It is the acetone type, so there is no corrosiveness with metals, and almost no influence on plastics.
It has excellent adhesion with metals, glass, and plastics.
It can be used at a temperature range of -60°C to 300°C (approx.), and for continuous use, the heat resistance is about 250°C.
* It does not have high electrical resistivity, so it cannot be used for insulation.

1226

This is a tin-free product.
It is the alcohol type, so there is no influence such as corrosion on metals and plastics.
It exhibits excellent adhesion for various kinds of substrates, including metals and resin materials such as engineering plastics.
It can be used at a temperature range of -60°C to 250°C (approx.), and for continuous use, the heat resistance is about 180°C.
It has excellent electric insulation.

1230

This is a heat curable two-component potting agent with a low viscosity for electric/electronic devices.
It is hardened by heating at 100°C for approximately 15 minutes to form a rubber elastomer that is heat resistant, cold resistant, waterproof, humidity resistant, impact resistant with impact absorption, and has great electrical characteristics, and great heat conductivity.
It can be used at a temperature range of -60°C to 250°C (approx.), and for continuous use, the heat resistance is about 180°C.
It is a flame-retardant type that is certified with the flame-retardant standard UL94 V-0.

1234B

This is a heat-curing type with excellent resistance to heat, moisture, and water.
It reaches practical strength in 1 hour after being heated at 100°C.
It exhibits excellent adhesion for various kinds of substrates, including metals and resin materials such as engineering plastics.
It can be used at a temperature range of -60°C to 250°C (approx.), and for continuous use, the heat resistance is about 180°C.
The cured material is soft and it can conform to the movement of the substrate.

Silicone-Based Adhesives Sealants and Potting Agents

Property Table

Characteristics		Unit	1207B	1208	1208B	1208C	1209	1220G	1220H	1221G	1221H
Main component			Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone	Silicone
Reaction type			Acetone	Acetone	Acetone	Acetone	Acetone	Alcohol	Alcohol	Alcohol	Alcohol
Features			Standard Type	Standard Type	Standard Type	Standard Type	Highly heat-resistant type	Standard Type	Standard Type	Standard Type	Standard Type
Appearance			Black	White	White	White	Black	Milky white (Translucent)	White	Milky white (Translucent)	White
Viscosity		Pa·s	100	55.0	3.3	-	140	65.0	65.0	-	-
Flowability			None	Yes	Yes	None	None	Yes	Yes	None	None
Tack free time		min	3	3	3	3	5	10	10	10	10
Content of low-molecular siloxane			-	-	-	-	Reduced product (300ppm or less)	Reduced product (200ppm or less)	Reduced product (200ppm or less)	Reduced product (200ppm or less)	Reduced product (200ppm or less)
Physical characteristics after curing	Specific gravity		1.01 (Liquid specific gravity)	1.04 (Liquid specific gravity)	1.04 (Liquid specific gravity)	1.04 (Liquid specific gravity)	1.05 (Liquid specific gravity)	1.04	1.03	1.04	1.04
	Hardness		A30	A30	A20	A30	A42	A20	A20	A28	A28
	Elongation	%	400	300	200	450	270	500	500	500	500
	Tensile strength	MPa	1.9	2.0	0.7	2.5	2.1	2.2	2.2	2.5	2.5
	Volume resistivity	Ω·m	Not good for insulation	5.2×10^{12}	1.0×10^{12}	1.0×10^{12}	Not good for insulation	2.0×10^{13}	2.0×10^{13}	3.0×10^{14}	3.0×10^{14}
	Dielectric breakdown strength	kV/mm	Not good for insulation	25	22	23	Not good for insulation	25	25	22	22
	Thermal conductivity	W/m·K	-	-	-	-	-	-	-	-	-
Tensile shear bond strength	Aluminum	MPa	1.1	1.4	2.5	0.5	1.7	1.0	1.0	1.0	1.0
	Glass	MPa	-	-	-	-	1.3	1.2	1.2	1.0	1.0
	Acryl	MPa	-	-	-	-	-	1.3	1.3	1.2	1.2
	Polycarbonate	MPa	-	-	-	-	-	1.4	1.4	1.2	1.2
Remark(s)			Non-flammable grade UL-HB certified product				Heat resistance of approx. 300°C				

* - : Unmeasured
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Silicone-Based Adhesives Sealants and Potting Agents

Property Table

Product name		1222C	1224G	1225B	1225C	1226	1230		1230G		1234B
Characteristics	Unit										
Main component		Silicone	Silicone	Silicone	Silicone	Silicone	Silicone		Silicone		Silicone
Reaction type		Alcohol	Alcohol	Alcohol	Alcohol	Alcohol	Additional reactions		Additional reactions		Heat-curing
Features		Incombus-tible type	Ultra-fluid type	For heat dissipation	For heat dissipation	Tin-free type	For potting, non-flammable		For potting, non-flammable		Highly resistant type
Appearance		Gray	Milky white (Translucent)	White	Gray	Gray	Agent A: Rust	Agent B: White	Agent A: Black	Agent B: White	Gray
Viscosity	Pa·s	-	1.2	18.0	70.0	97.0	5.3	5.0	9.0	1.2	400
Flowability		None	Yes	Yes	Yes	None	Yes	Yes	Yes	Yes	None
Tack free time	min	5	7	5	10	7	-		-		-
Content of low-molecular siloxane		Reduced product (200ppm or less)	Reduced product (200ppm or less)	Reduced product (200ppm or less)	Reduced product (200ppm or less)	Reduced product (200ppm or less)	-		Reduced product (500ppm or less)		-
Physical characteristics after curing: Specific gravity		1.32	1.00	2.60	2.90	1.37	1.53 (Liquid specific gravity)	1.54 (Liquid specific gravity)	1.34 (Liquid specific gravity)	1.34 (Liquid specific gravity)	1.18 (Liquid specific gravity)
Physical characteristics after curing: Hardness		A45	A24	A74	A81	A27	A70		A35		A11
Physical characteristics after curing: Elongation	%	250	150	48	50	460	70		185		700
Physical characteristics after curing: Tensile strength	MPa	4.0	0.5	3.9	2.5	2.4	4.5		3.1		2.3
Physical characteristics after curing: Volume resistivity	Ω·m	4.0×10^{12}	5×10^{13}	2.0×10^{14}	1.1×10^{11}	4.3×10^{12}	7.8×10^{13}		1.5×10^{13}		7.8×10^{11}
Physical characteristics after curing: Dielectric breakdown strength	kV/mm	30	28	20	17.4	19	29		25		21
Physical characteristics after curing: Thermal conductivity	W/m·K	-	-	1.59	2.5	-	0.46		0.42		-
Tensile shear bond strength: Aluminum	MPa	1.0	0.6	0.9	1.1	2.2	Non-adhesive		1.3		1.7
Tensile shear bond strength: Glass	MPa	1.7	0.6	1.3	-	1.9	Non-adhesive		-		1.9
Tensile shear bond strength: Acryl	MPa	2.2	0.5	-	-	2.1	Non-adhesive		-		-
Tensile shear bond strength: Polycarbonate	MPa	1.4	0.6	-	-	1.7	Non-adhesive		-		-
Remark(s)		Non-flammable grade UL94 V-0 certified product			UL94 V-1 certified product		Non-flammable grade UL94 V-0 Certified Product Compounding ratio 100:100 Visible time: 6 hours Standard curing conditions: 100°C×10min		UL94 V-0 certified product Self-adhesive type Non-flammable grade UL94 V-0 Certified Product Compounding ratio 100:100 Visible time: 40 hours Standard curing conditions: 100°C×1h Good adhesion		Standard curing conditions: 100°C×1h

* - : Unmeasured
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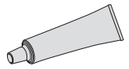
1100/1200 Series

Application Equipment

This section introduces Application Equipment to apply adhesives efficiently.

- A lineup of devices that can handle small-amounts and large-amounts of sealants and adhesives is available.
- They are suitable for the bead application of solvent-volatilization-type and moisture-curable-type liquid gaskets.
- Dispensers that can apply a fixed quantity of a sealant and adhesive without waste are available.
- A unit that can reduce the amount of a remaining material in a pail is available as an option. (Some conditions must be met.)

Tube



Air gun for sealant (DH1)

Applicable package type: Cartridge/Tube
This is a pneumatic sealant gun.

*This product may not be compatible with some cartridge and tube types. For the details, contact one of our sales engineers.

Individual catalog number #36

Tank for tube Air dispenser (minicoater C5)

Applicable package type: Tube
The discharge amount is adjusted by means of the dispensing time and tank pressure.

*This product may not be compatible with some tube types. For the details, contact one of our sales engineers.

Individual catalog number #2

Cartridge

Cartridge-type pump (PCB-20)

This is a high-pressure feeding pump designed for automatic application. When it is combined with a robot, uniform linear application is possible.
Automatic application by machine is possible.

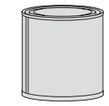
Individual catalog number #6

Dedicated to surface application Adhesive discharging valve RV-SN Series

This is an adhesive discharging valve to apply material in plane-like or band-like form.
Automatic application by machine is possible.

Individual catalog number #30

1-kg can



Tank for 1-kg or less bottle or can (TG1-T) Pen type manually operated valve (pencil gun)

This dispenser is for a low-viscosity material.
Dispensing is done by pulling the gun lever.
Automatic application by machine is impossible.

Individual catalog number #3

Tank for 1-kg or less bottle or can (TG1-T) Dispense valve (HPNV-50) Pressure controller (coater S4) Desktop robot (RT7 Series)

This device pressure-feeds a material from a tank and applies the material by controlling the valve.
When the dispenser is combined with a robot, it applies the material appropriately to a programmed position.
Automatic application by machine is possible.

Individual catalog number #14

Pail

Double-acting pump for pails (AP-30) High-pressure flow gun type (H-FLG)

This dispenser is excellent in high-speed dispense and operability as the result of a combination of high-pressure feeding pump for pails and a high-pressure flow gun.
Automatic application by machine is impossible.

Individual catalog number #7

Single-acting pump for pails (PBIII-45)

This is a pump for streaming a high viscosity liquid agent efficiently.
When it is combined with a robot, uniform linear application is possible.
Automatic application by machine is possible.

Individual catalog number #8

Pump for pails (PBIII) Single-component fixed-quantity booster (fixed-quantity booster) Desktop robot (RT7 Series)

When a high-pressure feeding pump designed for automatic application and a constant-speed dispense head are combined with a robot, high-precision and uniform linear application that is not affected by changes in the environmental temperature is possible.
Automatic application by machine is possible.

Individual catalog number #9

For Industrial Use Only Do not use this product for household purposes

This product was developed for general industrial use. Before using this product, the user must accept the following terms:

- The technical data given herein are not guaranteed values, but examples of experimental values obtained by our specified test methods. We do not guarantee that the uses described herein do not conflict with any intellectual property right.
- Users are asked to examine whether the product is appropriate to the purpose of use and can be used safely before they use it and bear all responsibilities and hazards involved in its use. Never use the product for medical implants that may be embedded, injected or left in the body.
- We are not liable for personal injury or property damage caused by improper handling of this product. If the properties and usage of this product are unknown, never use it.
- For detailed safety information of the product, see the Safety Data Sheet (SDS). To obtain the SDS, contact our sales office or customer service center.
- Information in this technical document is subject to change at our discretion without notice.

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● With about 100 sales offices and manufacturing plants in Japan as well as 60 sales offices and manufacturing plants that are located outside of Japan, we have established a system to quickly meet the needs of our customers.

Your request: