

Aremco offers an impressive selection of high performance epoxies for specialty bonding and potting applications to 600 °F. These products can be applied to a myriad of substrates, offering exceptional chemical, electrical and mechanical properties...

PRODUCT HIGHLIGHTS

Ultra High Temperature

- 526N** Clear-Amber, 1:1 System for Tough Bonding Applications.
- 570** Single-Part Contact Adhesive, Excellent Flexibility.
- 805** Aluminum-Filled, Low Shrinkage, High Thermal Conductivity, For Bonding and Molding Applications.

High Temperature, Special Purpose

- 568** Aluminum-Filled, 1:1, Good Bond Strength and High Thermal Conductivity.
- 631** Clear-Amber, 1:1, Good Bond Strength and Corrosion Resistance.
- 657** Stainless Steel-Filled, High Corrosion Resistance.
- 807** 10 Minute Set, Non-Sagging, 1:1, Excellent Electrical & Mechanical Properties.
- 820** Clear, 1:1, 45-Minute Cure System with Good Flexibility.
- 2150** Ceramic-Filled, Fast-Setting, High Vibration Resistance and Bond Strength. Ideal for bonding ceramic wear tiles.
- 2315** High Temperature, Thermally Conductive, Low Viscosity, Potting Compound for Electrical Applications.
- 2318** High Temperature, Low Viscosity, Room Temp Curing Potting Compound.
- 2320** Light Weight, Low Expansion, High Strength, 1:1 System.

High Temperature, Maintenance and Repair

- 2200** Glass Fiber- and Kevlar-Reinforced, Epoxy-Novolac, High Strength, Excellent Abrasion and Corrosion Resistance.
- 2210** Aluminum and Ceramic-Filled, Vibration and Impact Resistant, For Repairing Aluminum Mold and Wear Surfaces.
- 2220** Ceramic-Filled, High Chemical Resistance, Machinable, For Repairing Deeply-Corroded Parts.

Ultra High Bond Strength

- 2300** Milky Clear, 10:1, Low Viscosity, Exceptional Bond Strength.
- 2310** Ceramic-Filled, 1:1, High Lap Shear and Peel Strength, Autoclavable.



Aremco-Bond™ 526N seals connection in down-hole motor assembly.



Aremco-Bond™ 570 bonds copper tip to ceramic welding nozzle.



Aremco-Bond™ 631 produces a gas-tight high pressure seal between sapphire and stainless steel.



Aremco-Bond™ 657-FST repairs defects in cast iron.



Aremco-Bond™ 1:1 epoxies are available in 50 ml pre-filled cartridges for ease of dispensing.

PROPERTY CHART

Category	Ultra High Temperature					High Temperature, Special Purpose								High Temperature, Maintenance & Repair				Ultra High Bond Strength	
	526N [®]	570 [®]	805	568	631 [®]	657	807	820	2150	2315	2318	2320	2200	2210	2220	2300	2310		
Product Number	526N [®]	570 [®]	805	568	631 [®]	657	807	820	2150	2315	2318	2320	2200	2210	2220	2300	2310		
Mix Ratio by Weight , ^① resin:hardener	1:1	NA	100:12	1:1	1:1	1:1	1:1	1:1	100:13	100:25	100:12	1:1	1:1	100:11	100:28	100:10	1:1		
Specific Gravity , gms/cc @ 25 °C	1.23	.95	1.66	.85	1.24	1.65	1.39	1.15	1.50	1.95	1.58	.60	1.60	1.18	1.7	1.10	1.35		
Mixed Viscosity @ 25 °C , cps	8,500	35,000	11,000	Paste	25,000	Paste	75,000	12,000	Paste	3,000	16,000	Paste	Paste	Paste	Paste	5,000	45,000		
Pot Life , 100 gm mass @ 25 °C, hrs	2.5	NA	≤ 1.0	4.0	4.0	4.0	.07	.25	.25	>8	2	>8	.70	1.0	1.0	.75	.75		
Recommended Cure , hr/°F	2/200 +2/325	2/100 +2/200	2/100	2/200	2/200	2/200	1/RT	.75/RT	24/RT	2/160 2/300	4/RT + 2/200	2/175 2/300	24-48/RT	24-48/RT	12-24/RT	2/150	2/150		
Alternate Cure , hr/°F	3-4/300 +5/200	5/100 +5/200	24-48/RT	24-48/RT	24-48/RT	24-48/RT	—	—	1/RT +4/175	6/250	24-48/RT	2/175 2/300	2/RT	2/200	2/200	48/RT	48/RT		
Temperature Resistance , °F	-76/572	-76/600	-103/572	-85/400	-85/400	-85/400	-67/+266	-58/392	-67/400	-67/+365	-67/+248	-202/+400	-67/400	-67/400	-67/400	-67/350	-67/325		
Temperature Resistance , °C	-60/300	-60/316	-75/300	-65/204	-65/204	-65/204	-55/+130	-50/200	-55/204	-55/+185	-55/+120	-130/+204	-55/204	-55/204	-55/204	-55/175	-55/165		
CTE , in/in/°F x 10 ⁻⁶ (°C)	18 (33)	48 (86)	25 (45)	33 (60)	27 (49)	30 (54)	32.8 (59.0)	16 (29)	18 (32)	18.9 (34.0)	39.0 (70.2)	12.0 (21.6)	19 (34)	15 (28)	18 (32)	37 (66)	43 (77)		
Thermal Conductivity , Btu-in/hr-ft ² -°F	—	—	12.5	9.0	—	—	—	—	—	8.4	4.4	—	—	11.0	—	—	—		
Tensile Shear Strength , psi ^②	2,800	2,100	1,800	2,500	3,000	2,500	1,135	1,200	2,350	—	1,135	2,815	2,400	2,600	2,700	4,560	4,770		
Flexural Strength , psi ^③	18,000	ND	15,500	11,400	10,200	12,000	—	8,000	11,800	12,300	14,100	14,000	13,400	14,100	16,000	13,500	12,000		
Volume Resistivity , ohms-cm	4.0 x 10 ¹⁴	1.0 x 10 ¹³	1.0 x 10 ⁵	1.0 x 10 ⁵	1.2 x 10 ¹⁴	ND	2.0 x 10 ¹⁴	2.0 x 10 ¹⁴	1.0 x 10 ¹⁵	1.0 x 10 ¹⁶	3.0 x 10 ¹⁵	2.0 x 10 ¹⁶	1.0 x 10 ¹⁵	1.0 x 10 ¹³	2.0 x 10 ¹⁵	1.0 x 10 ¹⁵	3.0 x 10 ¹³		
Dielectric Strength , volts/mil	450	300	50	80	440	ND	380	860	460	480	460	—	460	420	480	380	410		
Dielectric Constant , 1.0 kHz	3.01	ND	ND	ND	3.12	ND	4.4	6.0	4.2	4.7	4.8	3.0	4.7	6.5	6.8	3.5	4.28		
Dissipation Factor	.01	ND	ND	ND	.01	ND	.03	.04	.03	.01	.014	.003	.01	.09	.01	.008	.4		
Chemical Resistance	Good	Very Good	Good	Excellent	Good	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Excellent	Good	Good	Very Good	Very Good	Good		
Color	Amber	Black	Gray	Gray	Amber	Gray	Gray	Clear	Light Gray	Black	Black	Beige	Rust Brown	Gray	Black	Milky Clear	Black		
Hardness , Shore D	89	ND	87	75	75	75	73	70	84	92	89	90	86	89	88	85	78		
Cure Shrinkage , in/in ^④	.01	ND	.003	.002	.002	.002	.009	.008	.004	.003	.003	—	.009	.005	.003	.003	.001		

Reference Notes

- ① Epoxies mixed in a 1:1 ratio are available in 50 ml dual barrel cartridges. Add "-C" to part number (eg. 568-C). Request 9700 mechanical dispenser, 9800 pneumatic dispenser or 9850 manual plunger. Also request 9905 3.5" or 9910 6" static mixing nozzles.
- ② Tested according to ASTM D1002-94. This is a standard test method for determining the shear strength of single lap-joint metal coupons in tension loading.
- ③ Tested according to ASTM D790, "Flexural Properties of Unreinforced and Reinforced and Electrically Insulating Materials, Method - L, Three Point Loading System"
- ④ Linear shrinkage is measured using a 3/4 lb casting mass.
- ⑤ Aremco-Bond 570 is a contact adhesive. Apply .015" to each part, allow solvents to flash for 20 minutes, then clamp parts together for curing.
- ⑥ Also available filled with alumina, 526N-ALOX, black pigment, 526N-BLACK, or both alumina and black pigment, 526N-ALOX-BL.

Application Notes

Surface Preparation: All surfaces must be free of oil, grease, dirt, corrosives, oxides, paint or other foreign matter. Sand blast or abrade non-porous surfaces, or etch using Aremco's Corr-Prep™ CPR2000.

Mixing: Two-component products should be mixed thoroughly prior to dispensing. For high viscosity systems each component can be preheated separately @ 100-125 °F to facilitate mixing and dispensing. Use Aremco's 9700 or 9800 50 ml dispensing systems for precise mixing of two-component products.

Application: In most cases, the adhesive should be applied to both surfaces maintaining a glue line of less than 10 mils. After assembling the parts, pressure should be applied to the assembly to prevent warpage and reduce air entrapment. Refer to curing guidelines in above property chart.

Abbreviations

- NA - Not Applicable
- ND - Not Determined
- RT - Room Temperature

Refer to price list for complete ordering information. Aremco Products makes no warranty express or implied concerning the use of this product.

The user assumes all risk of use or handling whether or not in accordance with directions or suggestions, or used singly or in combination with other products.