

ADHESIVE PRODUCT CATALOG

INSTANT ADHESIVES ARON ALPHA® INDUSTRIAL KRAZY GLUE TM

HOTMELT ADHESIVES ARON MELT SERIES

HIGH FUNCTIONAL REACTION TYPE ADHESIVES ARON MIGHTY SERIES

HEAT-RESISTANT INORGANIC ADHESIVES ARON CERAMIC Though it often cannot be seen, there is an "unsung hero" that we just cannot do without. Toagosei's adhesives have been supporting our lives through many different industries, including automobiles, home electrical appliances, medical equipment, telecommunications, as well as many others. Adhesives have been an integral part of life, something we really cannot do without. Toagosei has dedicated itself to developing adhesives to meet a wide range of needs and applications and is working hard to become a global leader in the adhesives industry.

Recommended Adhesives at a Glance

Just for reference, here is a table of recommended adhesives depending on materials and conditions.



Adhesives of single component, non-solvent type that react with residual moisture.

ARON ALPHA									
PRIMER ONLY FOR ARON ALPHA	Hardening Catalyst on for ARON ALPHA								
PP PRIMER	SETTER								
EN PRIMER	SETTER AEROSOL								
Glass PRIMER									
Silicone PRIMER									





High Functional Reaction Type Adhesives Pg. 15 These adhesives are used in various applications such as automotive exterior parts, automotive mohr bonding,.

Urethane Series	ARON MIGHTY PU
Nylon Series	ARON MIGHTY FS



Heat-Resistant Inorganic Adhesives Pg. 16 Inorganic adhesives of single component liquid – heat curing type, with better heat-resistance

ARON CERAMIC

ARON MELT

TOAGOSEI Table of Adhesive Serie

		F	Porous			organ	ic		Ruk	ober		
		Leather	Paper	Wood	Glass	Ceramic	Stone	EPDM	Nitrile Rubber; Chloroprene Rubber	Natural Rubber	Silicone Rubber	
Me	Steel, Aluminum, Stainless Steel	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	a, PPET	α	
tal	Electroplating Treatment	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	α, PPET	α	
	Hard PVC	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	α, PPET	α	
	ABS	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	α, PPET	α	
	Acrylic Resin	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	α, PPET	α	
	Polycarbonate	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	α,PPET	α	
Pla	Phenol	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	α, PPET	α	
stic	Ероху	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	a, PPET	α	
	Soft PVC	α,Μ	α,Μ	α,Μ	α,Μ	α,Μ	α,Μ	α,Μ	α,Μ	α	α	
	Polyester	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	α, PPET	α	
	Nylon	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET	α, PPET	α	
	PP, PE	α, PPET	α	α, PPET	α,PPET	α						
	Olefin Elastomer	α, PPET	α	α, PPET	α, PPET	α						
R	Silicon Rubber	α	α	α	α	α	α	α	α	α	α	ĺ
ddr	Natural Rubber	α, PPET	α, PPET	α, PPET	α, PPET	a, PPET	a, PPET	α	a, PPET	α, PPET		
er	Nitrile Rubber; Chloroprene Rubber	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,Μ	α,M,PPET			
	EPDM	α,Μ	α,Μ	α,Μ	α,Μ	α,Μ	α,Μ	α,Μ				
Ino	Stone	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET					
rga	Ceramic	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET						
nic	Glass	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET							
Рс	Wood	α,M,PPET	α,M,PPET	α,M,PPET								
prot	Paper	α,M,PPET	α,M,PPET									
SI	Leather	α,M,PPET										

TOAGOSEI TABLE OF ADHESIVE SERIES

					Pla	stic					Metal	
Olefin Elastomer	PP, PE	Nylon	Polyester	Soft PVC	Ероху	Phenol	Polycarbonate	Acrylic Resin	ABS	Hard PVC	Electroplating Treatment	Steel, Aluminum, Stainless Steel
α, PPET	α,PPET	α,M,PPET	α,M,PPET	α, Μ	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET
α, PPET	α,PPET	α,M,PPET	α,M,PPET	α, Μ	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	
α, PPET	α,PPET	α,M,PPET	α,M,PPET	α, Μ	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET		
α, PPET	α,PPET	α,M,PPET	α,M,PPET	α, Μ	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET			
α, PPET	α,PPET	α,M,PPET	α,M,PPET	α, Μ	α,M,PPET	α,M,PPET	α,M,PPET	α,M,PPET		-		
α, PPET	α,PPET	α,M,PPET	α,M,PPET	α, Μ	α,M,PPET	α,M,PPET	α,M,PPET					
α, PPET	α,PPET	α,M,PPET	α,M,PPET	α, Μ	α,M,PPET	α,M,PPET						
α, PPET	ΡΡΕΤα	α,M,PPET	α,M,PPET	α, Μ	α,M,PPET		_					
α	α	α, Μ	α, Μ	α, Μ								
α, PPET	ΡΡΕΤα	α,M,PPET	α,M,PPET		-							
α, PPET	ΡΡΕΤα	α,M,PPET				Legend						
α, PPET	ΡΡΕΤα					Abbreviation Name						
α, PPET						α Instant Adhesives ARON ALPHA						
						PPI	ΞT	Olefin® HO	T MELT A	RON MELT	PPET	

High functional reaction type adhesives

ARON MIGHTY PU, FS

- For materials such as silicone rubber, engineering plastics, PP, PET, and PE that are hard to bond together sometimes require surface treatment, please refer to the data of appropriate products.
- Attention should be paid to acrylic, polycarbonate, and ABS that are likely to be dissolved by solvents.

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• Attention should be paid to materials such as soft PVC, rubber and elastic substances that may result in the transfer of plasticizers and additives.

The table is to be published as a reference only. Please take into consideration various factors regarding adhesion before choosing the adhesives.

ARON ALPHA INDUSTRIAL KRAZY GLUE ®

Cyanoacrylate is the primary ingredient in ARON -ALPHA. The cyanoacrylate monomer (liquid form), reacting with the residual water in air or on the surface of the adhered substances, will be cured within seconds.





CHARACTERISTICS OF ARON ALPHA



Instant Bonding	Easy to use	Strong Bonding
Bonding at the rate of seconds. Most suitable for shorten bonding cycle.	Adhesive is single component and heat- treatment are not required. Perfect for improving efficiency.	Bonding strength is remarkable in a variety of materials.
Chemical Resistance	Environmentally Friendly	A Wide Variety of Products
Showing extremely high	Cyanoacrylate has low	From liquid to gel, there is a sufficiently wide range of

	SYSTEM	200 Series 400 Series	600 Series	800 Series	900P Series	Gel-10
Before Curing (Liquid State)	Appearance		Colo	orless, Transparent l	₋iquid	
	Specific Gravity	1.050	1.050 1.004		1.090	1.090
	Boiling Point (°C/°F @ 667 Pa)	60-62 / 140-144	68 / 154	200 / 392	N/A	60-62 / 140-144
	Flash Point (°C/°F) Tag Closed Type	83 / 181	77 / 171	112 / 234	83 / 181	83 / 181
	Ignition Point (°C/°F)	485 / 905	463 / 865	330 / 626	330 / 626	485 / 905
	Freezing Point (°C/°F)	-29.6 / -21.3	-18.7 / -1.66	below -20 / -4	below -20 / -4	below -20 / -4

	Appearance		Col	orless, Transparent	Solid	
	Specific Gravity	1.248	1.156	1.168	1.2	1.29
	Hardness (Shore D, 23 °C/73 F)	90	80	60	30	90
	Glass Transition Point (°C/°F)	140 / 284	115 / 239	80 / 176	80 / 176	140 / 284
After Curing (Solid State)	Softening Point (°C/°F, BICKADE method)	145 / 293	110 / 230	60 / 140	N/A	145 / 293
	Linear Thermal Expansion Rate (x10 ⁻⁴)	1.1	1.5	1	1.1	1.1
	Permeability (10MC @ 10°C/50°F)	3.5	3.5	3.5	3.5	3.5
	Dielectric Breakdown Voltage (kV/0.1mm, 23°C/73°F)	14	14	14	14	14
	Volume Insulation Resistance (Ω·cm, 30° C/86°F)	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ¹⁴
	Dissolvable Solvent		Acetone, Di	methyl formamide, D	imethylsul foxide	

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TOP BRAND OF INSTANT ADHESIVES

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INSTANT ADHESIVES ARON ALPHA INDUSTRIAL KRAZY GLUE

For selecting the most appropriate adhesive according to their characteristics and general usage.

					Char	racteristic	s (E: Ex	cellent,	G: good,	NG: no	ot suita	ble)	
System	Туре	Characteristics	Grade	Viscosity (mPa·s, 25°C/77°F)	Bonding strength to metal	Bonding strength to electroplating	Bonding strength to Rubber	Bonding strength to Plastic	Bonding strength to hard -bonding material	Anti shock resistance	Moisture resistance	solvent resistance	
			201	2	G	G	G	G					
	For General	The type suitable for use in	241	40	G	G	G	G					
	Use	resin, metal and wood	202	100	G	G	G	G					
			203	1,500	G	G	G	G					
			221	2	G	G	G	G					
	Quick	General type of	241F	40	G	G	G	G					
200 Series	Curing	quick curing	202F	85	G	G	G	G					
			252F	500	G	G	G	G					
	Super-Quick	Type of quickest hardening.	241SF	40	E	G	E	E	G				
	Curing	Also suitable for material hard to bond	232SF	300	E	G	E	E	G				
		High viscosity with less running and dripping as its characteristics	203TX	1,500	G	G	G	G					
	Thixotropic		253TX	5,000	G	G	G	G					
		Gel, Aluminum tube	GEL-10	gel	G	G	G	G					
	Impact	Suitable for bonding percussive metallic part	412XZ	85	E	G		G		G			
	Resistance		414TXZ	6,000	E	G		G		G			
400 Series	Heat	Heat resistance -resistant in bonding metals and impact resistance good	401X	2	E	G		G		G			
	Resistant, Impact		402X	85	E	G		G		G			
	Resistant		403X	1,500	E	G		G		G			
600	Low Odor, Low	Reduce whitening and odor	601PF	2	G	E	G	G			G		
Series	Whitening, Water Resistance	Good water resistance.	602P	85	G	E	G	G			G		
800	No Odor,	Almost no whitening	801	10	G	G	NG	G			NG	NG	
Series	No Whitening	and odor	802	100	G	G	NG	G			NG	NG	
900	Softness, Moist and	Good for moist and heat	922H2	150	G	G	G	G			Е		
Series	Heat Resistance	resistance in rubber	903TX	850	G	G	G	G			Е		
For W	ood Work	Suitable for bonding wood. repairing, wooden molds and	Complete an d expensive,	nd wide range of a rare woods.	dhesive gra	ades availab	le. Suitab	le for asse	embling woo	den prod	ucts and		
Artifici	al Marble	For use on artificial marble.	With various	s kinds of colors s	uch as trans	sparent, whi	te, black a	and gray.					
Color	Grades	Able to confirm the coating o	olors of adh	esives. Available	in red and I	blue. Pleas	e contact y	your sales	representat	ive.			
Re	mover	For use in removing harden	ed substance	For use in removing hardened substances and peel off parts of adhesives (this does not apply to the 100 series).									

Those marked with an "*" indicate that the adherent has been damaged. The testing method is carried out in accordance with the JISK6861-1995 (a testing method of cyanoacrylate adhesive systems).



TOP BRAND OF INSTANT ADHESIVES

Set Time(sec)					Tens	ile strength	strength (psi) Tensile shearing stren			ngth (psi) Form of packing						
PVC	ABS	Poly- car- bonate	Rubber	Steel	Alumi- num	PVC	ABS	Steel	PVC	ABS	Steel	2gx5 pieces	20g	50g	100g	500g
5	15	20	5	15	15	5,000	3,600*	4,600	1,000*	710*	2,840	G	G	G	G	G
10	50	60	10	40	45	5,000	3,600*	4,600	1,000*	710*	2,840	G	G			G
10	60	60	10	50	60	5,000	3,600*	4,600	1,000*	710*	2,840	G	G			G
25	120	100	25	100	120	5,000	3,600*	4,600	1,000*	710*	2,840		G	G		G
3	5	10	3	10	-	5,000	3,600*	4,600	1,000*	710*	2,840	G	G			G
5	15	20	5	15	-	5,000	3,600*	4,600	1,000*	710*	2,840	G	G	G		G
3	5	5	10	5	-	5,000	3,600*	4,600	1,000*	710*	2,840		G			G
5	15	15	15	10	-	5,000	3,600*	4,600	1,000*	710*	2,840		G			G
1	1	3	5	5	-	-	-	5,000	-	-	-		G	G		G
1	1	3	10	5	-	-	-	5,000	-	-	-		G	G	G	G
5	15	30	5	20	120	3,800	3,000	4,300	1,000*	710*	2,840		G	G		G
5	15	15	5	15	-	3,800	3,000	4,300	1,000*	710*	2,840		G	G		G
5	15	30	5	20	30	3,800	3,000	4,300	1,000*	710*	2,840		G			
3	-	-	5	10	30	4,300	-	5,000	-	-	-		G	G		G
5	-	-	10	20	45	3,600	-	4,300	-	-	-		G	G		G
10	10	-	-	15	15	-	-	5,800	-	-	3,300		G			G
15	30	-	-	30	60	-	-	5,800	-	-	3,300		G			G
30	30	-	-	60	120	-	-	5,800	-	-	3,300		G			G
3	10	-	3	10	15	4,300	3,550*	4,270	-	-			G			G
5	15	-	10	15	30	4,300	3,550*	4,270	-	-			G			G
5	3	15	-	3	3	4,600	2,600	4,400	1,000*	700*	2,400		G			G
10	30	30	-	15	15	4,600	2,600	4,400	1,000*	700*	2,400		G			G
3	10	-	30	-	-	3,800	-	-	-	-			G			G
5	10	-	30	-	-	2,400	-	-	-	-	0.6		G	G		G



*Material failure

ARON ALPHA INDUSTRIAL KRAZY GLUE ®

APPLYING ARON ALPHA

• Remove the dust, oil and other contaminants on the surface of the adherent, drop the Aron Alpha and stick it immediately on one side of the material, press it slightly to spread adhesive. Do not spread adhesive with nozzle. The recommended amount of adhesive is 5 mg/cm³ (about 1 drop). Excessive coating will reduce the bonding speed. • The setting time varies according to temperature, moisture, adherent, surface state and the type of adhesive. Please have the bonding conditions and data of set time confirmed before setting up the pressing time. For fixed amount of coating, please use automatic coating machine (refer to page 12). Difficult bonding materials (silicone rubber, PP, etc.) require surface treatment. Please treat the surface with primer for special purposes before bonding (refer to page 11).





SURFACE DISSOLUTION & CRACKS OF PLASTICS

•The plastic surfaces of Aron Alpha, curing accelerant, AA Setter, Remover, dissolvable acryl, polycarbonate, ABS etc. may lead to cracks.

Prevention of Cracks and Surface Dissolution

·Do not use Aron Alpha excessively. Reduce Spillage.

- ·Use quick hardening Aron Alpha.
- •Use together with curing accelerant (alcohol base)
- •Reduce the internal stress of adherent.

Solubility Chart of Plastics with ARON ALPHA, AA-Setter and Remover

The state after being soaked for 10 minutes at room temperature. \mathbf{O} : No Change, $\mathbf{\Delta}$: Slight Change on Surface, \mathbf{A} : Surface Adherence

	ARON ALPHA	AA–Setter	Remover (Acetone)
Hard PVC	0	0	0
Soft PVC	0	0	0
Acrylic	Δ	0	*
Polycarbonate	Δ	0	*
PS	▲	0	*
Nylon	0	0	0
Polyester	0	0	0
ABS	Δ	0	*
AS	Δ	0	*
Polyacetal	0	0	0
Bakelite	0	0	0
Melamine	0	0	0
Natural Rubber	0	0	0
Chloroprene Rubber	0	0	0





CHLOROSIS (WHITENING PHENOMENON)

•Refers to the phenomenon that the circumference of the adhesives forms a white powder.

Prevention of Chlorosis

- ·Do not use Aron Alpha excessively. Reduce Spillage.
- Reduce humidity.
- •Use a fan to ventilate area, not allowing the vapor to be stagnant.
- $\cdot \textsc{Use}$ together with curing accelerant AA Setter.
- ·Use low-blooming and non-whitening Aron Alpha.

Clean-up when Chlorosis has occurred ...

- ·Clean up with dry wiping cloth.
- ·Wipe with Remover.
- •Wipe with acetone, alcohol and solvent. (Sometimes the adherent may be dissolved by solvent. Please confirm before using a solvent.)

REMOVER FOR EXCLUSIVE USAGE



•Please use it for treatments such as removing hardened adhesives, separating bonded parts and removing Chlorosis.

METHOD OF STORAGE

•The curing process accelerates in the presence of moisture, ultraviolet rays or heat, and would thus reduce the capabilities. •Store it in low humidity, cool and dark places.

·Avoid storing with hardening accelerants (such as Setter).

·Keep out of reach of infants and children.

WARNING

May have an irritating odor, Aron Alpha might irritate eyes, nose and throat. Please maintain proper ventilation it is used in large amounts or for a long period of time. Please wear protective glasses and/or hood shield.

•In case of absorbing into cloth, Aron Alpha will rapidly polymerize and result in heating. During operation, avoid wearing gloves made of absorbable materials, instead use solvent proof polyethylene gloves.

ARON ALPHA is a flammable liquid. Use in a well ventilated area, and keep away from fire.

For details refer to the Material Safety Data Sheets issued by the company.

PACKAGING FORMS OF ARON ALPHA

METHOD OF DISPOSAL

Expose the adhesives in the containers to moisture and light to let it harden slowly, and to treat it as waste plastics (drastic hardening may result in heating, pay attention to this situation).

Please comply with local regulations when disposing of this material.

When in contact with Skin*...

•Don't peel it off forcibly, instead use warm water or remover to rub it off.

When in contact with Eyes*...

 It will damage the eyes to rub the eyes or to use solvents. Must rinse with large amount of water and get medical attention.



2g x 5 pieces Capsule	20g bottle	20g Tube	50g bottle	100g bottle		
500g bottle	2kg bottle	Primer Family	Setter Family	Setter with Pump Spray		
Aram Transformer Aram Transfo	ACCM ALCOME					

Case Units	20g ► 25 pieces per box	50g ► 20 pieces per box	100g ► 10 pieces per box	500g ► 2 pieces per box
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For details, Please contact your sales representative.

ARON ALPHA INDUSTRIAL KRAZY GLUE ®

PRIMERS OF ARON ALPHA FOR EXCLUSIVE USE

ARON ALPHA Primers makes it possible to bond the "hard-to-bond" materials, thus increasing the use of ARON ALPHA.



METHOD OF USING

First soak the skimmed cotton or felt, etc. with the Primer, and rub the bonding surface one to two times. Then proceed with bonding using Aron Alpha adhesive. Because of the affect by temperature and moisture, the capacities of the Primer cannot be fully brought into play if the coating/waiting time is prolonged. The adherent with Primer should be bonded as soon as possible.

> Warning, Primers should be kept away from flame when in use, and use in a well ventilated area.



PRIMERS OF ARON ALPHA FOR EXCLUSIVE USE

ARON ALPHA Setters are curing accelerants of ARON ALPHA, which shorten the bonding time.



PRODUCT LINE UP

RADE	SETTER A SETTER H		SETTER E	SETTER A AEROSOL
Product	Story ALPMA Setter A	ADDIN ALPHA Deltar H Settor H Martin		Accelerator Aerosof - concernance Adresses - Adresses -
SOLVENTS	Acetone	n-Heptanes	Ethanol	Acetone
CAPACITY	120 mL 1 gallon	120 mL 1 gallon	120 mL 1 gallon	10 oz

METHOD OF USE

Treatment Before Bonding

Soak the skimmed cotton, sponge, etc. with AA-Setter, rub the opposite face on one side of the coating adhesives, one to two times, have them bonded after drying.

Soak the adherent with AA-Setter in a container, have them bonded after drying.





•Drip the AA-Setter, or blow the •Put the bond

AA-Accelerator onto coating part.

•Put the bonded materials in a AA-Setter environment.

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WARNING

Please confirm the adhesive properties, effect on/by the adherent, environmental affect, etc.

Mixing with Aron Alpha would result in drastic heating reaction and should be avoided.

Dispenser of Aron Alpha for Exclusive Use

Regarding the automation of bonding work and the control of dispensing quantities, the rationalization of their working procedures, is that it is effective to introduce automatic coating machine for exclusive purposes. The AA-Setter having strong hardening properties should be stored and used separately from the Aron Alpha adhesive.

•Being a flammable substance, it must not be used near flames. Use adequate ventilation.





MODIFIED POLYOLEFIN SERIES ADHESIVES/ ARON MELT

ARON MELT is a HOT MELT type adhesive with modified polyolefin as the main ingredient and is suitable for difficult bonding materials such as Polypropylene (PP), Polyethylene (PE), Polyester (PET), and Nylon, as well as many other kinds of resins, wood, metals, etc.

BLOCK TYPE

Gr	ade	AS852	AS920	100-75B
Cr	olor	Light Brown Yellow	Light Yellow	Light Brown
Viso (mPa⋅s, 18	cosity 30°C/356°F)	44,000	5,300	6,800
R&B Softo (°C	ening Point / °F)	150 / 302	137 / 279	138 / 280
Application (°C	Temperature / °F)	200-220 / 392-428	180-200 / 356-392	180-200 / 356-392
T Peel Strength ^{*1} (piw)	PP/PP	46	N/A	N/A
180° Peel Strength ^{*2} (piw)	0° Peel Strength ^{*2} PE / Cotton canvas N/A		28 / AF	34 / CF
	PP / Cotton canvas	N/A	49 / CF	27 / CF
	ABS / Cotton canvas	N/A	49 / CF	29 / CF
Nylon / Cotton canvas		N/A	50 / CF	25 / CF
Characteristic		Heat-resistance Adhesion to hydrophobic substrate Good balance between heat and cold resistance Adhesion to various substrates Adhesion to various		·Heat-resistance ·Adhesion to various substrates
Usage		Adhesion/Sealing Automotive interior materials, electric parts etc.		

*1, Measured temperature; 20°C / 68°F *2, Measured temperature; Room temperature, CF; Cohesive failure, AF; Adhesive failure *Additional grades are available. Please contact your sales representative.

METHOD OF USE

When using Aron Melt, please use the special HOT MELT applicator.

ARONMELT

SOLUTION TYPE

Grade		PPET 1401SG	PPET 1505SG
	Color	Yellow	Yellow
Liquid	Solvent Compostition	Toluene/n-hexane	Toluene/MEK/ n-hexane
Properties	Viscosity (mPa·s, 25°C/77°F)	8,000	100
	Solid Content (%)	40	100
Melting Point (°C/°F)		Above 200/392	Above 200/392
Recommended Bonding Temperature (°C/°F)		170/338	170/338
Characteristic		Heat-resistance	Heat-resistance, High Strength
Packaging		14 kg	/box

*Additional grades are available, please contact your sales representative.

Conditi	ions	T Peel Strength (piw)		
Substrate/Substrate	Adhesive Temp. °C / °F	PPET 1401SG	PPET 1505SG	
DD/DD	150 / 302	2.0	3.1	
PP/FF	170 / 338	4.5	13.9	
DD/DE	110 / 230	3.1	0.2	
FF/FE	130 / 266	3.1	3.6	
PET/PET	170 / 338	2.2	0.4	
AL/AL	170 / 338	5.6	6.5	

*Press : 28.38psi, 30s, Adhesive Thickness; 20µm

METHOD OF USE

Using a roll coater or similar applicator, spread the adhesives onto the material to be bonded. Bond by heating and pressing.





*Regarding the warnings for use, please refer to the Material Safety Data Sheets issued by our company.

ARON MIGHTY SERIES

The ARON MIGHTY Series is a high functional reactive type of adhesives. There are Urethane series, Nylon series, with many different grades and characteristics developed by unique techniques. They can by used in numerous fields such as electronic materials, automobile, home construction materials, and many more.

URETHANE SERIES ADHESIVE/ ARON MIGHTY PU SERIES

ARON MIGHTY series is a powerful bonding urethane series adhesive for all sorts of plastics and metals. With urethane series resin as a raw material, we can obtain a tough and pliable cured substance. It possesses excellent durability and flexibility, and it is extensively used in automobile exterior parts.

Туре	Grade	Appearance	Viscosity (mPa⋅s, 25°C/77°F)	Solid Content (%)	Solvent	Curing Conditions, Characteristic	Usage
Two-component	SNE-5880	Light Yellow	10	5	MEK,	Mix ratio (weight) ; SNE-5880 / PU-171= 10:1,	Automobile
ture curing	PU-171	Light Yellow	1,500	75	Methyl Acetate	25°C x 5 hours or 90°C x 2 minutes	exterior parts

		SNE-5880 / PU-171= 10:1 (by weight)
Hardness (Shore A)		98
Softening point (ASTM D816) ; °C / °F		78 / 170
	Nylon / PVC	7
T-Peel Strength *1	ABS / PVC	17
(piw)	Polycarbonate / PVC	37
	Aluminum / PVC	10

*1, Test condition for T-Peel Strength Adhesion temperature ; 210°F, 2min., Tensile Speed ; 7.8 inch/min.

NYLON SERIES ADHESIVES/ ARON MIGHTY FS SERIES

ARON MIGHTY FS series is based on modified thermosetting nylon, which solidifies with heat. As it is being heated, it is cross-linking, forming a 3-D net structure during bonding. This is a unique technology, by which we not only retain the flexibility of the rubber, but also create a balance bond with good stretching strength and good peeling strength.

175SV10 can be used as a primer for injection, press extrusion integrative molding, and can be used for brush-spreading, dipping, spray and other methods.

Туре	Grade	Appearance	Viscosity (mPa⋅s, 25°C/77°F)	Solid Content (%)	Solvent	Curing Conditions,	Characteristic, Usage
One-component moisture curing	FS-175SV10	Milky White Liquid	60	10	Ethyl Alcohol	120°C x 3 minutes	Automobile Mohr Bonding

	FS-175SV10
T-Peel Strength	Substrate Failure (37.5 piw or more)

*Test condition for T-Peel Strength Substrate ; Softening PVC

Adhesion temperature ; 250°F with 14.2-71.0 psi pressing, 3min.,

ARON CERAMIC



 Object to adhere
 Normal Condition Bonding Strength
 Heat Aging Performance
 Retained Strength Ratio after Heat Aging (%)

Cordierite, heat resistant

glass

HEAT RESISTANCE BONDING OF DIFFERENT MATERIALS

Applicable material

Package

Bauxite rutile ceramics.

steatite

150g, 1kg

 Carbon Steel — Carbon Steel
 51
 48
 93

 Carbon Steel — SUS304
 57
 41
 72

Grade/ARON CERAMIC D, heating condition: 300°C x 1 hour, measure at room temperature * Regarding the notice items in using, please refer to the Material Safety Data Sheet issued by our company.

Carbon steel, stainless

steel



Technical Terms and Basic Vocabulary for Adhesives

	ABOUT RESIN PROPERTY
Word	Explanation/Definition
SOLID CONTENT	Leftover content from vaporization measured under specified test condition
Melting point	The temperature at which solid starts to melt into liquid.
R&B SOFTENING POINT	The softening point measured by the R&B method
Melt Index (MI)	Indicate the fluidity degree when the heat plasticity resin melt, also indicates the index of the polymer chain length (molecular weight, polymerization degree)
GLASS TRANSITION POINT (TG)	When the temperature of the plastic increases from low temperature, the temperature at which the glass state becomes a soft rubber state (liquid)
Таск	The function that exert bonding force within short time after contact to the object to be adhered by a very light force.
Тніхоткору	Gelatinous macromolecule phase becomes a solid with fluidity by mixing round or vibration, and return into gelatinous phase after lay, such a nature is called Thixotropy.
STRESS	For any plane inside an object, there is a force projected on either side of the plane, such force is stress
STRESS CONCENTRATION	When forces push on the exterior of an object, if the object has an uneven part or irregular shape, at that point the forces will generate more a distinct stress, such a phenomenon is stress concentration
INTERIOR DEFORMATION	The deformation occurred due to the stress caused by the bond volume shrinking at the time of curing.
Bond shrinkage	Ratio of the volume shrinking generated when the bond cures
CREEP	The phenomenon that the deformation generated when an exerted stress to the bonding section becomes a transformation
FLEXIBILITY	Endurance of bending
PLASTICITY	The deformation appeared under the stress but over the elasticity limit, cannot return to the original model even if the stress is eliminated, this nature is plasticity.
ELASTICITY	The nature that objects recovers the deformation caused by exterior force.
STRETCHING-ELASTICITY RATIO	When stretching or exerting a stress to elastic object, the ratio of the stress to the deformation
Hardness	Degree of the resin hardness
RATIO OF RELATIVE HUMIDITY	Under given condition, the ratio of the water content to the material absorbed
LINEAR EXPANSION RATE	The rate of the solid length change generated accompanied by the temperature change
	CURING BRIDGING STRUCTURE
Word	Explanation/Definition
Curing	The process that adds hardener, accelerant to the bond, allowing it polymerize at normal temperature, thereby improving the bond strength.
Hardener	The substance that promotes or adjusts the curing time by reacting with the main content of the bond
BRIDGING AGENT	The substance that make the bond ingredients process a chemical reaction to form a 3-dimensional structure
GELATION	Via vaporization, cooling or chemical reaction, etc., the bond may transform into semi-solid state from a liquid state, becoming gel-like.
	BONDING METHOD
Word	Explanation/Definition
SURFACE TREATMENT	The process where by the surface of the object is changed to be suitable for bonding, either by chemical or physical treatment.
CHEMICAL TREATMENT	The treatment that by chemical reaction, makes the surface of the object suitable for bonding
PRIMER	The solvent is spread onto the surface of the object in advance in order to improve the bonding ability between the adhering object and bond or the sealing material.
OPEN TIME	The time from the adhesive application until the object is bonded.
LIFE TIME (POT LIFE)	The time the adhesive mixture remains in a stable usable state. The time of the adhered material to solidify or cure.
Set Тіме	The time of the adhered material to solidify or cure.
PRESERVATION	In order to improve the bonding quality of the joint, expose the bonding material to a certain condition, also call heat preservation
ASSEMBLY TIME	The time from applying the adhesive on the object until solidification.
	After spreading solvent type adhesive on to the film, paper, aluminum foil, etc. and after drying, it is joined with another film, paper, or aluminum foil by pressing.
EXTRUSION LAMINATE	Extrude and press the resin, then join with adhering object.
FOAM MELT	Heating melted HOT MELT adhesive, under pressure and mechanically mix with non-active gas such as nitrogen. After mixing and melting it is spread by formation of foam (foaming agent).

	INTERFA	CE PHENOMENC	DN .	
	Word	Explanation/Definition		
Meeting angle		When a liquid meets a surface	a solid, the angle ($\boldsymbol{\theta}$) formed between the liquid surface and solid	
Blocking		The phenomenon that at the usual storage state, the joining of solid adhesive with solid adhesive or other basic material, which cannot peel off from each other		
Chlorosis and Bloo	ning	The phenomenon tha	t become white around the bonding part	
Solvent Crack		Cracks that form in m	olded parts as a result of contact with solvent or vapors.	
Material Failure		The adherent was dead	stroyed when the bond was being pulled, leaving the adhesive-	
Breakage		Breakage occurred w	ithin the adhesive bond.	
5	LIGHT-CURIN	G. ANAEROBIC C	URING	
	Word		Explanation/Definition	
Anaerobic Curing		The phenomenon tha	t the curing is repressed due to oxygen present, by eliminating the will complete	
Ultraviolet radiation	Curing	Bond formation by ult	raviolet light exposure	
Visible light Curing	-	Bond formation by vis	ible light exposure	
Light source		Equipment generating	յ light	
Illumination degree		Beam number in unit	area of surface illuminated	
Light accumulation		Product of light intens	ity and illuminating time	
Light permeation ra	te	Rate of the light permeated through object		
Refractive index		The ratio of the light speed in vacuum and the light speed in certain media		
Breakage torque		The force required to loosen the screw fixed by bond		
Dislocation torque		The leftover resistance after the screw fixed by bond breaks		
	RESIN	ABBREVIATION		
ABBREVIATION	ΝΑΜΕ	ABBREVIATION	ΝΑΜΕ	
ABS	Acrylonitrile butadiene styrene resin	PI	Polyimide	
APAO	Non-crystal polyalphaolefin	PMMA	Poly (methyl methacrylate)	
AS	Acrylonitrile styrene resin	POM	Polyoxymethylene	
BR	Butadiene rubber	PP	Polypropylene	
CR	Chloroprene rubber	PPO	Polyphenylene ether	
EEA	Ethylene Acrylic acid-ethyl copolymer	PPS	Polyphenylene sulfide	
EP	Epoxy resin	PS	Polystyrene	
EVA	Ethylene acetic acid vinyl copolymer	PTFE	Polytetrafluoroethylene (Teflon)	
EPDM	Ethylene propylene diene monomer	PUR	Polyurethane	
EPM	Ethylene propylene rubber	PVC	Poly(vinyl chloride)	
IR	Isoprene rubber	PVDC	Poly(vinylidene chloride)	
LCR	Liquid crystal polymer	SBS	Styrene-butadiene-styrene bloc copolymer	
MDF	Medium density fiberboard	SI	Silicon resin	
NBR	Acryionitrile butadiene Rubber	515	Styrene-Isoprene-styrene bloc copolymer	
NK	Neoprene rubber	SEBS	Styrene-Etnylene-butylene-styrene bloc copolymer	
PA	Polyamide	SEPS	Styrene-Ethylene-propylene-styrene bloc copolymer	
DDT		100	i nermoplastic polyoletin	
PBT		=		
PBT PC	Polycarbonate	UF	Urea formaldehyde resin (carbamide resin)	
PBT PC PE	Polycarbonate Polychylene	UF	Urea formaldehyde resin (carbamide resin)	
PBT PC PE PEN	Polycarbonate Polyethylene Polyethylene Polyethylene Polyethylene Polyethylene Polyethylene Polyethylene	UF	Urea formaldehyde resin (carbamide resin)	

SI UNIT CONVERSION TABLE					
Ітем	SI UNIT	CONVERSION FORMULATION			
Viscosity	Pars	1 Paˈs = 10P(1m Paˈs = 1cps)			
STRENGTH	N/mm²	1 N/mm² = 1Mpa 1 N/mm² = 1.01972X10 ⁻¹ kgf/cm²			
PEEL STRENGTH	N/25mm	1N/25mm = 1.01972X10 ⁻¹ kgf/25mm ²			
Pressure	Pa	1Pa = 1 N/m² = 1.01972X10 ⁻⁵ kgf/cm²			
QUANTITY OF HEAT	J	1J = 1W⋅s = 1N⋅m = 0.2388 cal			





1450 West Main Street West Jefferson, OH 43162 Tel : 614-879-9411 Fax : 614-879-6959 sales@toagosei.net https://aronalpha.net/