

2 Super-X Gold No.777

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Cemedine Super-X Gold No. 777 meets the need for swift adhesives with the new concept "instantaneous elasticity" by reaching its curing level from the "Quick curing" range to the "Rapid curing" range



RoHS適合品

JAIA F☆☆☆☆ 4VOC 基準適合

Features

1 Environmental responsiveness

Environmental countermeasure products (Avoidance of 14 substances formulated based on the guidelines of the Ministry of Health, Labour and Welfare)

Avoidance of poisonous and deleterious substances
Voluntary registration of products not subject to formaldehyde by the Japan Adhesive Industry Association [Conformity to JAIA F☆☆☆☆·4VOC Standards]

RoHS-conforming products

2 Quick curing

Rapid curing

(Handling time by the open time about 1 min. after application: About 1-2 min./23°C, Handling time by the open time about 2 min. after application: About 30 sec.-1 min./23°C)

Low temperature curing

3 Durability

High adhesion (Adhesive property over an extensive range for woods, inorganic boards, metals and plastics)

High durability (Achieving excellent results in terms of resistance to heat and cold shock)

[Electrical characteristics]

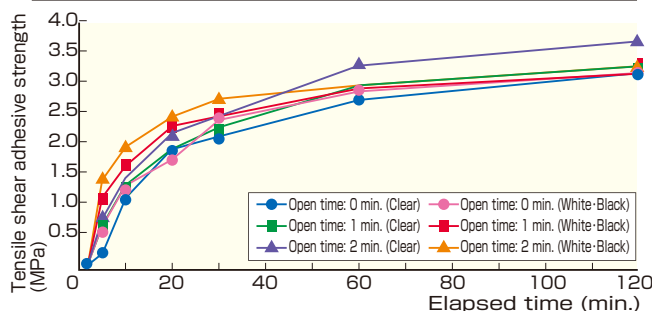
Items	Clear	White	Black
Surface resistivity ($\Omega \cdot \text{cm}$)	1.66E+13	3.69E+12	2.14E+12
Volume resistivity ($\Omega \cdot \text{cm}$)	2.32E+12	3.45E+12	3.75E+11
Dielectric constant (100Hz)	3.87	5.12	6.30
Dielectric loss tangent (100Hz)	0.07	0.19	0.28

[Initial adhesive performance]

Initial tensile shear adhesive strength (MPa)

● Plywood and plywood Amount of coating: 100 μm thick (per side) on both sides

Curing time (Under the atmosphere of 23°C, 50% RH)	5 min.		10 min.		20 min.		30 min.		60 min.		120 min.	
	Clear	White-Black	Clear	White-Black	Clear	White-Black	Clear	White-Black	Clear	White-Black	Clear	White-Black
Open time: 0 min	0.28	0.58	1.09	1.34	1.84	1.71	2.05	2.40	2.67	2.81	3.13	3.12
Open time: 1 min	0.60	1.14	1.32	1.52	1.89	2.29	2.26	2.46	2.95	2.88	3.22	3.14
Open time: 2 min	0.71	1.40	1.42	1.92	2.18	2.45	2.48	2.68	3.25	2.90	3.61	3.24



Application

- Adhesion required to have initial adhesive strength
- Adhesion required to have durability due to repeated heating, cooling and vibration

[General properties]

Items	Specifications (central value)		
	Clear	White	Black
Base	Special polymer containing silyl group		
External appearance	Light yellow clear paste (Curing: Light yellow)	White-Whitish Yellow paste (Curing: White)	Black paste (Curing: Black)
Viscosity (Pa·s/23°C)	76.0	82.0	82.6
Specific gravity (g/cm³)	1.02	1.14	
Tack free time	3.5	2.5	
Tensile shear adhesive strength (MPa)*	5.86	3.24	
T type peeling adhesive strength (N/mm)	3.08	3.31	
Hardness (Shore A)	60	58	
Breaking strength (MPa)	3.65	3.42	
Breaking extension (%)	110	120	
Effective period	12 months (Indoor storage at temperatures of 5-35°C)		

*Adherend: Mild steel plate and mild steel plate

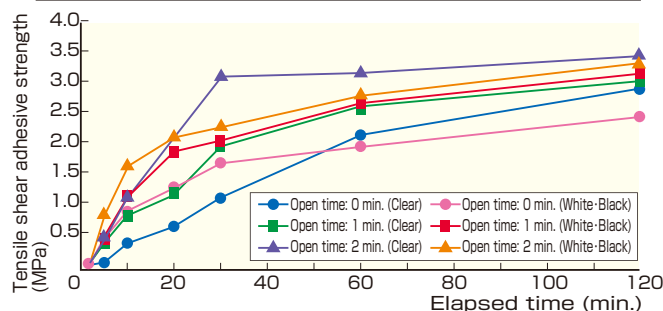
[Initial curing]

Temperature	Tack free time	
	Clear	White-Black
5°C	14 min.	9 min.
10°C	10 min.	7 min.
23°C	4 min.	2.3 min.
30°C	3 min.	1.3 min.
40°C	2 min.	1 min.

● Aluminum/aluminum

Amount of coating: 100 μm thick (per side) on both sides

Curing time (Under the atmosphere of 23°C, 50% RH)	5 min.		10 min.		20 min.		30 min.		60 min.		120 min.	
	Clear	White-Black	Clear	White-Black	Clear	White-Black	Clear	White-Black	Clear	White-Black	Clear	White-Black
Open time: 0 min	0.08	0.30	0.30	0.85	0.59	1.22	1.01	1.61	2.17	1.98	2.85	2.42
Open time: 1 min	0.30	0.45	0.77	1.18	1.17	1.81	1.96	2.00	2.54	2.65	3.00	3.15
Open time: 2 min	0.40	0.80	1.15	1.59	2.09	2.01	3.01	2.24	3.12	2.74	3.43	3.35



[Adhesive strength for various types of materials]

Adherend	Tensile shear adhesive strength (MPa)	
	Clear	White·Black
Plywood	5.07	3.87
Japanese hemlock.	5.45	3.94
FRP	7.35	3.84
Phenol	7.15	3.75
PP	0.33	0.30
PE	0.35	0.35
Stainless steel	4.35	3.21
Stainless steel (*1)	6.53	4.24
Copper	11.29	4.85
PP (PP·7F to be used)	1.31(*2)	1.21(*2)

*23°C, 50%, RH×7-day curing *Amount of coating: 100μm thick (per side) on both sides
 *1: Curing 2 weeks *2: Failure on primer and the adhesive bond line

[Deep-section curability]

Temperature	Curing speed	1 day later		2 day later		4 day later		7 day later	
		Clear	White Black	Clear	White Black	Clear	White Black	Clear	White Black
5°C	Thickness hard coating (mm)	0.74	0.86	1.00	1.00	1.45	1.55	1.80	2.10
23°C		1.90	2.04	2.54	2.72	3.35	3.80	4.51	4.86
35°C		2.83	3.10	4.26	4.37	6.00	6.05	7.70	7.68

[Heat resistance to deterioration]

Exposure agency	80°C		100°C		120°C		130°C	
	Clear	White Black	Clear	White Black	Clear	White Black	Clear	White Black
1 week	9.77	5.45	9.95	7.05	9.60	7.57	9.70	7.29
2 weeks	9.98	6.54	9.73	7.53	9.62	7.15	9.58	6.35
4 weeks	10.04	6.31	9.62	7.54	9.39	7.36	8.95	6.63
8 weeks	9.94	6.79	9.69	7.34	9.70	6.56	8.05	5.98
12 weeks	9.84	6.87	9.45	7.25	9.42	5.98	7.19	4.81
18 weeks	10.20	6.86	9.47	6.75	8.79	5.36	5.86	3.10

*23°C, 50%, RH×7-day curing *Amount of coating: 100μm thick (per side) on both sides
 *Adherend: Aluminum / aluminum

[Chemical resistance]

Chemicals	Tensile shear adhesive strength (MPa)	
	Clear	White·Black
3% sulfuric acid	5.73	3.72
30% sulfuric acid	5.28	3.08
10% hydrochloric acid	5.68	3.22
1% acetic acid	5.45	2.98
10% acetic acid	5.65	3.01
10% saline solution	7.12	3.75
Machine oil	8.85	4.44
IPA	3.62	1.25
n-Hexane	1.65	0.20
MEK	1.74	0.14

*23°C, 50%, RH×7-day curing *Amount of coating: 100μm thick (per side) on both sides
 *Adherend: Aluminum / aluminum
 *Dipped in chemicals for 7 days. Later, measuring after uncontrolled under the circumstance of 23°C, 50%, RH for 3 days

[T-Peeling adhesive strength]

Adherend	T-peel strength (N/mm)	
	Clear	White·Black
Plasticized polyvinyl chloride	0.56	1.61
Nitrile Rubber (NBR)	0.24	1.23
EPDM	0.23	0.09
EPDM (Buffing)	1.52	1.52
Reverse of cowhide	2.35	1.15
Surface of cowhide	1.16	1.03

[180°Peeling adhesive strength]

Adherend	Peel strength (N/mm)	
	Clear	White·Black
Unplasticized polyvinyl chloride	2.40	1.35
Polycarbonate	2.16	1.56
PS	2.16	1.34
ABS	2.14	1.36
Acrylic resin	2.16	1.39
Nylon	1.27	1.65
Mild steel plate	2.45	1.75
Al	2.40	1.86
PP(PP-7F)	0.66	1.35

*23°C, 50%, RH×7-day curing *Amount of coating: 200μm thick (per side) on both sides
 *Adherend: Various types of adherends and canvas

[Adhesive strength at each temp]

Temperature	Tensile shear adhesive strength (MPa)	
	Clear	White·Black
-40°C	9.85	9.87
-20°C	8.87	5.78
0°C	7.98	4.74
23°C	7.62	4.75
80°C	3.45	2.54
100°C	3.25	1.74
120°C	3.20	1.58

*23°C, 50%, RH×7-day curing *Amount of coating: 100μm thick (per side) on both sides
 *Adherend: Aluminum / aluminum

[Hot-cold shock]

Cycle number	Tensile shear adhesive strength (MPa)	
	Clear	White·Black
500 cycles	10.30	5.73
1000 cycles	9.53	5.46
2000 cycles	9.86	6.24

*23°C, 50%, RH×7-day curing *Amount of coating: 100μm thick (per side) on both sides
 *Adherend: Aluminum / aluminum
 *1 cycle: 80°C×1 hour <=> 30°C×1 hour