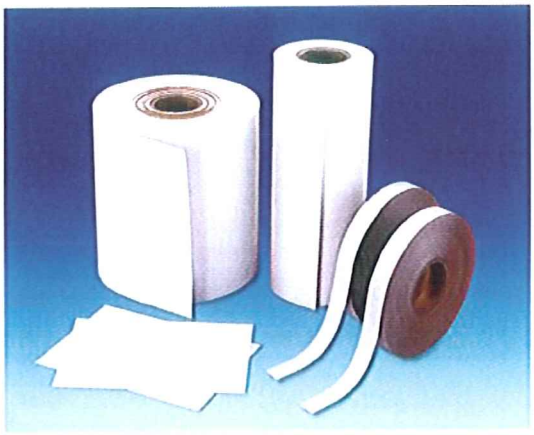
ARONMELT PES®-111EE-CT

POLYESTER HOT MELT GLUE ARONMELT PES®-111EE-CT For IC module embedding.

AronMelt PES® is a polyester hot melt adhesive developed by our polymer synthesis and resin processing technologies. AronMelt PES® is suitable for use as adhesive for smart cards as it possesses the powerful bonding and durability properties required for such use. The superb adhesion continues to remain strong with repeated uses over a long period of time.



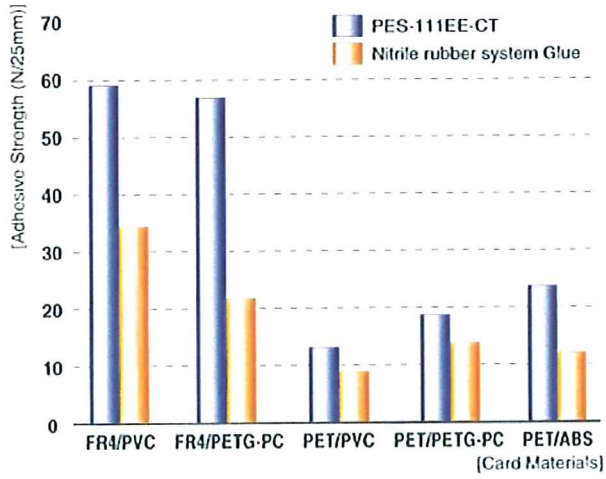
FEATURES

- Excellent adhesive strength.
- Broad compatibility for use with most cards materials, such as PET, PETG, PC, PVC, and ABS, etc (especially compatible with Flip chip module).
- Quick setting and bonding action.
- Good bond durability for prolonged use.
- Good chemical resistance.
- Flexibility in the strong adhesion which allows for bending, without sacrificing bonding strength.
- Low level of tack – clean and easy to handle.

APPLICATIONS

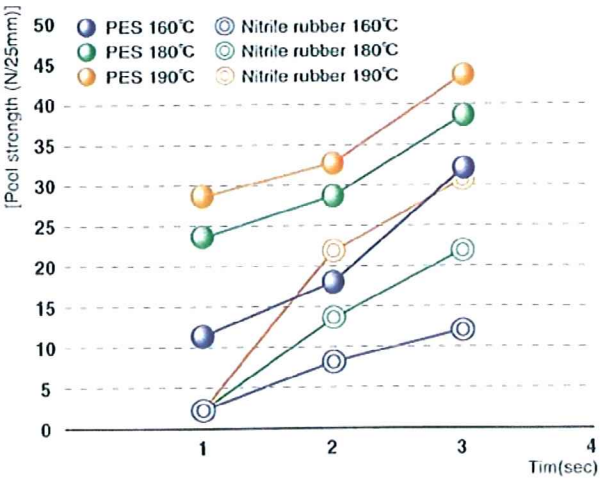
Bank-,ID-,access-,Payment-,Telephone-,Mobile communications- cards, etc.

BONDING STRENGTH BY MATERIALS



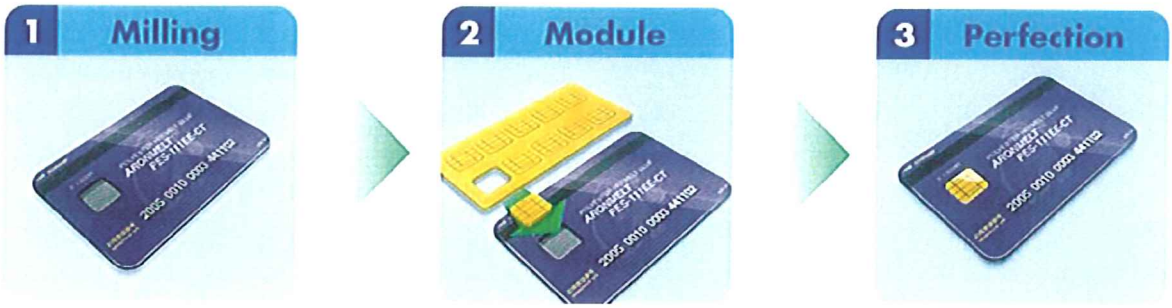
Testing condition	Thickness of adhesive film 50μm
Heat pressing condition	190℃×2sec×0.4MPa
Peeling test	23℃,300mm/min

EMBEDDING CONDITIONS



Testing condition	Thickness of adhesive film 50μm
Materials bonded	PETG-PC film 0.36mmt/PET0.1mmt
Heat pressing condition	160,180,190℃×2sec×0.4MPa
Peeling test	23℃,300mm/min

CONTACT SMART CARD IC MODULE EMBEDDING



THERMAL STABILITY

Material : PET film (50μ)	Unit N/25mm
Room temperature (23℃)	50.0SF
50℃ Water×7days	33.0SF
120℃×500hrs	65.0SF
-40℃×500hrs	49.0SF
105℃×1hr ⇔ -40℃×1hr (300cycles)	47.0SF

Practically no difference was found in peeling strength between before(at room temperature) and after the thermal acceleration.SF : Substrate Failure

RANGE

	Unit	PES®-111EE-CT
Product		Saturated polyester
Thickness	μm	30~50
Length	m	100 or 200
Width	mm	27 or 29
Shelf life	months	12 at40℃ or less

ADHESIVE STRENGTH

Material		
	PET	Very good
	PETG	Very good
	PETG/PC compound	Very good
	PVC	Very good
	ABS	good

CONDITIONS

Prelamination Conditions	Temperature	110~130℃
	Pressure	0.3~0.7MPa
	Time	2~3sec
Implanting Conditions	Temperature	180~200℃
	Pressure	0.4~1MPa
	Time	1~3sec

GENERAL PROPERTIES

	Method	Unit	PES®-111EE-CT
Melting temperature	JIS-K-7121	℃	120
Specific gravity	ASTM-D-1505	g /㎤	1.20
Tensile strength	JIS-K-6301	MPa	12
Elongation	JIS-K-6301	%	750
Volume resistivity	ASTM-D-257-66	Ω cm	2.00E+14
Surface resistivity	ASTM-D-257-66	Ω	2.00E+15
Dielectric strength		kV/mm	50