



PROTAVIC® ACE 40010-X1 A

PROTAVIC® ACE 40010-X1 B

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628023 - 628024

DEFINITION

The **PROTAVIC® ACE 40010-X1 A & PROTAVIC® ACE 40010-X1 B** is a two-component system, solvent free, electrically conductive adhesive, specially

designed for the connexion between the micromodule and the antenna in smart cards.

PRODUCT DESCRIPTION

- PROTAVIC® ACE 40010-X1 A

Appearance	viscous liquid	
Odour	slight	
Colour	silver	
Guaranteed specifications	Standards	Methods
Plate cone viscosity (mPa.s)	16000 ± 4000	NFT 51211
Residue at 900°C (%)	80 ± 2	TGA 1

- PROTAVIC® ACE 40010-X1 B

Appearance	viscous liquid	
Odour	slight	
Colour	silver	
Guaranteed specifications	Standards	Methods
Plate cone viscosity (mPa.s)	16000 ± 4000	NFT 51211
Residue at 900°C (%)	84 ± 2	TGA 1

Significant values on mix product	
Density of mixed product	4.2 approx.
Cone and plate viscosity (mPa.s)	16000 approx.
Thixotropic index (0,5/5 rpm)	About 3
Residue at 900°C (%)	82 approx.
Peak temperature by DSC (10°C/min)	150°C approx.
Curing schedules	1 hour at 80°C 2 days at 25°C

Mix ratio by weight	part A 1 part B 1
Storage of each component	6 months at < 25°C 1 year at < 0°C
Pot life* after mixing parts A + B (20 ± 2°C)	4 hours

* pot life defined as time corresponding to a 100% increasing viscosity.

APPLICATION PROPERTIES

The rheology and twin-tube package with mixer nozzle make the **PROTAVIC® ACE 40010-X1 A** and **PROTAVIC® ACE 40010-X1 B** easy to mix and apply in one step.

The high ionic purity of the **PROTAVIC® ACE 40010-X1 A** and **PROTAVIC® ACE 40010-X1 B** also avoids problems of corrosion, which would otherwise reduce the working life of the system.

CONDITIONS OF USE

Degrease very carefully substrates or components before bonding with non chlorinated solvents (which may encourage corrosion).

Typical curing schedule is 60 minutes at 80°C.

TYPICAL PROPERTIES OF POLYMERIZED SYSTEM

The properties given below and summarised in the following tables were obtained after polymerisation for 1 hour at 80°C in a ventilated oven.

These values given are typical and do not correspond to a guarantee. The user must, in all cases, by his own studies, determine the optimal polymerisation conditions for his own particular application of the **PROTAVIC® ACE 40010-X1 A** and **PROTAVIC® ACE 40010-X1 B**.

1) PHYSICO-CHEMICAL PROPERTIES

PROPERTIES	METHODS	UNITS	VALUES
Shore D hardness	NFT 51109	None	65
Lap shear strength at 20°C	NFT 76107	MPa DaN/cm ²	> to 5.0 > to 50

2) THERMAL PROPERTIES

PROPERTIES	METHODS	UNITS	VALUES
Coefficient of thermal expansion (-50 - -30°C)	TMA 1	ppm/°C	70
Coefficient of thermal expansion (0 - 50°C)	TMA 1	ppm/°C	250
Glass transition temperature	TMA 1	°C	about -20°C
Decomposition temperature	TGA 1	°C	About 305
Weight loss at 100°C	TGA 1	%	0.14
Weight loss at 200°C	TGA 1	%	0.60

STORAGE CONDITIONS

Store **PROTAVIC® ACE 40010-X1 A** and **PROTAVIC® ACE 40010-X1 B** in its syringe at temperature < +25°C.

Under these conditions, the maximum period of storage is about 6 months.

PRECAUTIONS IN USE

Refer to the enclosed safety data sheet.

PACKAGING

The **PROTAVIC® ACE 40010-X1 A** and **PROTAVIC® ACE 40010-X1 B** is supplied in twin-tube syringes with mixer nozzle. Other packaging is available under request.

The information contained in this data sheet corresponds to the present state of our knowledge ; it is intended for your guidance but we are not bound by it since we are not in a position to exercise control over the manner in which our products are used. Moreover, the attention of the user is drawn to the risks that could possibly occur should a product be used for an application other than that for which it is intended.