



### TECHNOLOGIES

- DIE ATTACH
- END TERMINATION
- COATING

### ADVANTAGES

- Proven materials with long history in passive component assembly
- Improved flexibility for excellent bending performance
- Silver coating with good adhesion on graphite layers, used in tantalum capacitors

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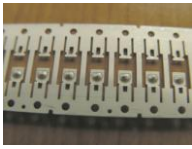


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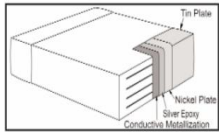


## ➤ DIE ATTACH

### Typical Application

Electrically conductive adhesives are used for the internal connections in tantalum capacitors. **PROTAVIC** offers a range of materials with a very long history and proven track record in this market.

ELECTROCONDUCTIVE PROTAVIC®	VISCOSITY AT 5 RPM (mPa.s)	ELECTRICAL CONDUCTIVITY (mΩ.cm)	THERMAL CONDUCTIVITY (W/m.K)	TG (°C)	STORAGE COND.	POT LIFE AT 20±2°C	CURING SCHEDULE	YOUNG MODULUS
<b>PROTAVIC® ACE 10100</b>	10000	0.10		70	3 months@-20°C	<1day	2min@175°C	
<b>PROTAVIC® ACE 10131</b>	10000	0.10	2.65	70	6 months@-20°C	<2days	2min@175°C	9GPa@25°C 0,49GPa@150°C 0,42GPa@250°C



## ➤ END TERMINATION

### Typical Application

**PROTAVIC's** soft termination materials, used as end terminations in the manufacturing of passive components, provide excellent flexibility. This results in improved bending performance, which is an ever demanding requirement for high reliability markets such as automotive, defense and/or military electronics.

ELECTROCONDUCTIVE PROTAVIC®	VISCOSITY AT 5 RPM (mPa.s)	ELECTRICAL CONDUCTIVITY (mΩ.cm)	TG (°C)	CTE (ppm/°C)	STORAGE COND.	WORK LIFE IN BASS AT 20±2°C	CURING SCHEDULES	DENSITY	COMMENT
<b>PROTAVIC® BCE 30370</b>	15000	0.20	80-95		6 months@-20°C	16 hrs	Air dry +1hr@150°C	~2.9	To use with diluent PROTAVIC®434
<b>PROTAVIC® BCE 30371</b>	7000@10rpm	0.15	80-95		3 months@10°C	16 hrs	Air dry +1hr@150°C	~2.7	To use with diluent PROTAVIC®434
<b>PROTAVIC® BCE 30374</b>	18000	0.15	80-95		6 months@-20°C	16 hrs	Air dry +1hr@150°C	~2.9	To use with diluent PROTAVIC®434
<b>PROTAVIC® BCE 30374 M</b>	5000	0.15	80-95		6 months@-20°C	16 hrs	Air dry +1hr@150°C	~3.1	To use with diluent PROTAVIC®434
<b>PROTAVIC® BCE 30375 M</b>	3000	0.25	80-100		3 months@25°C	16 hrs	Air dry +1hr@150°C	~2.7	To use with diluent PROTAVIC®434
<b>PROTAVIC® BCE 30380</b>	5000	0.05	80-95	60-65	6 months@10°C	3 months	6mn@90°C +30min@180°C	~3.1	To use with diluent PROTAVIC®434
<b>PROTAVIC® BCE 30382</b>	4500	0.03	90-105	60-65	6 months@10°C	16 hrs	Air dry +30min@180°C	~3.1	To use with diluent PROTAVIC®434



## ➤ COATING

### Typical Application

**PROTAVIC** has developed a conductive coating **PROTAVIC® BCE 60462** with excellent adhesion on graphite coatings, typically used in the manufacturing of tantalum capacitors. It's good conductivity assures low resistivity and long term reliable performance.

ELECTROCONDUCTIVE PROTAVIC®	VISCOSITY AT 5 RPM (mPa.s)	ELECTRICAL CONDUCTIVITY (mΩ.cm)	TG (°C)	STORAGE COND.	POT LIFE AT 20±2°C	DENSITY	COMMENT
<b>PROTAVIC® BCE 60462</b>	1000	0.15	70-90	1 year@-20°C	<3 months	~1.6	To use with diluent PROTAVIC®434