



ELPOX 656 S

ELECTRICALLY CONDUCTIVE, SILVER EPOXY

- * **TWO COMPONENTS**
- * **FOR EASY AND QUICK APPLICATION**
- * **MEDIUM TEMPERATURE CURING FORMULATION**
- * **WITH HIGHEST ADHESION TO MANY SUBSTRATES**

GENERAL DESCRIPTIONS:

ELPOX 656 S is double components, 100% solid (thinners free) silver filled epoxy type system containing pure silver flakes. It can be used as adhesive for making electrical conductive joints in electronic circuits and for die attaching electronic devices.

ELPOX 656 S has perfect adhesion to many different types of materials - especially glass, quartz, semiconductor chips, some plastics and metals. It is design for bonding of electronic devices like resistors, capacitors, transistors, diodes and LED's.

SPECIFICATIONS:

Number of components	two
Mixing ratio A : B (by weight)	10 : 0.5
Consistency after mixing A+B	smooth paste, 100% solids
Color	bright silver
Percentage of silver	70 ± 1%
Viscosity (part "A" at 25 C) (*)	800 000 – 880 000 cps (*)
Viscosity (part "A+B" at 25 C) (*)	750 000 – 800 000 cps (*)
Thixotropy index ("A"; 1/10 rpm at 25C)	7.0 – 7.5
Thixotropy index ("A+B"; 1/10 rpm at 25 C)	6.0 – 6.5
Recommended curing schedule	140 C - 60 min.
- convection oven	180 C - 15 min.
- heating tunnel	Total time – 9 min. Peak of temp. - 180°C - preheating: ~ 3 min. – (20 → 100)°C - curing: ~ 5 min. – (100 → 180)°C - cooling down: ~ 1 min. – (180 → 30)°C
Pot life	2.5 – 3 hours at 25C
Storage	12 month with closed container

(*) BROOKFIELD DVII; SSA#14;1rpm;25C

PHYSICAL PROPERTIES (*):

Specific gravity	2.95 – 3.10 g/ccm
Lap shear strength (Al – Al)	1.5 – 2.0 kG/mm ²
Resistivity after curing with oven	0.000001 – 0.00002 Ωm
Resistivity after curing with tunnel	0.0000007 – 0.000001 Ωm
Weight loss	0.5 % @ 190 C
Thermal conductivity	4.2 – 4.8 W/mK
Glass transition temp. (Tg)	105 C

(*) – Typical value for number of tests.

ATTENTION:

ELPOX 656 S is supplied as a double components material and is available in a variety of screw-top jar sizes. Minimum quantity is 100 grams.

1. Mix **ELPOX 656 S** – Part “A” inside container very thoroughly before use. After adding hardener – Part “B”, mix very thoroughly before use using wood or plastic spatula. Mix smoothly from the bottom of the container. Mix carefully - not to whip air into the product. ***INSURE ELPOX 656 S IS AT ROOM TEMPERATURE WHEN YOU WILL START WORKING WITH.***
2. Prepare consistency before use according your SPECIFICATION.
3. If you need, use AXMC **TH # 656** thinner. Thinner will change paste resistivity. Pls, do not exceed 1% of weight. After first tests pls let us know about your viscosity requirements – we will be able to change it for you.
4. Low conductivity and poor adhesion performance are symptomatic that **ELPOX 656 S** is under curing conditions.
5. Refrigeration during shelf time is useful. Keep containers with both parts of silver epoxy in temp. no less 10 C. Before use, increase paste temperature very slowly.
6. Use paste with adequate ventilation.
7. Avoid skin and eye contact. If ingested, consult a physician immediately.
8. Clean by MEK, alcohol or other suitable solvents.

WARNING:

Be careful on the case contacts with skin. When it occurs, wash immediately with soap and water. Consult with physician immediately.

This information is based on data and tests believed to be accurate. **AMEPOX MC** makes no warranties (expressed or implied) as to it's accuracy and assumes no liability in connection with the use or inability to use this product.

(Elx-656S)