SOLDER CHEMISTRY

SMT - ADHESIVE 35.ZXX-ROW

The adhesives of the 35.ZXX-row are the latest one-component epoxide resin adhesives for surface mounting in the electronics. They are very well suitable as well for dispensing as for stencil printing. They don't draw any threads during the application and thanks to the very well thixotropic system they form stable adhesive points after the printing. After hardening these adhesives distinguish themselves through very well dielectric qualities and thermal stability during soldering.
These adhesives are available in different viscosities depending on the processing method and component which can be recognised at the ending numbers.

ADHESIVE - TYPE	Main Application
35Z-5R (red) or 35Z-5G (yellow)	SMT-Adhesive for high speed dispensing, suitable for small points, silk or stencil printing
35Z-10R (red)	General purpose as SMT-Adhesive for dispensing
35Z-15R (red)	Adhesive for bigger components like IC's. Dispensing temperatures of 30 - 40℃ possible.
35Z-25R (red)	Adhesive for stencil printing
35Z-30R (red) or 35Z-30G (yellow) 35Z-35R or 35G	Adhesive for stencil printing, suitable for a stencil thickness <250 µm or flood squeegee

VISCOSITY(PA.s) and **WET STRENGTH**(Pa)

measured with a Physica Rheometre with an plate to plate measuring system(PM30) at a distance of 200 µm and a measuring temperature of 23℃.

Adhesive Type	35Z-5	35Z-10	35Z-15	35Z-25	35Z-30	35Z-35
Viscosity D=30/sek	20-30 Pa.s	25-35 Pa.s	40-50 Pa.s	50-65 Pa.s	110-120 Pa.s	200-220 Pa.s
Wet Strength	450 Pa.	600 Pa.	900 Pa.	1200 Pa.	600 Pa.	1600 Pa.

PHYSICAL DATA (tested according to Siemens-Norm SN59651)

Glass transition temperature (Tg-value)	> 100℃
Thermal conductivity	< 0.4 W/m.K
Adhesive strength (steel plate/steel plate)	> 80 kg/cm²
Volume resistance ASTM D-157	> 5x10 E 12 Ohm.cm
Dielectric constant ASTM D-150 1 MHz	3.5
Dissipation-factor ASTM D-150 1 MHz	0.02
Electrolytic corrosion effect	AN 1.2

APPLICATION INFORMATION

The adhesive is delivered depending on its ending number in red or yellow colouring. At curing the yellow adhesive gets a brown and the red one a dark or black hue.

The curing of the adhesive needs a temperature of over 100℃. Furthermore the length depends on certain factors like the capacity of the oven or the kind of the PCB but these values can be taken generally as a guide.

surface temperature	minimum hardening time
100℃	6 minutes
125℃	2 minutes
150℃	90 seconds

The cleaning of the surface from not cured adhesive left-overs can be done at room temperature with ethanol or 2-propanol. These medias shall under no circumstance get in touch with just used adhesive as an early curing of the adhesive is possible. To avoid that we recommend our **SC Stencil Cleaner**. Cured adhesive left-overs can only be removed mechanically. To not harm the component and to ease the removal it - or just only the joint dot - can be heated up before to over 100℃,so over the softening point of the adhesive (residual thermoplasticity).

Storage

In the original package at 0 to 23℃ min. 3 months. Recommended storage in a refrigerator at 0 to 5℃, as so the adhesive quality is guaranteed longer (more than 6 months). When stored in the refrigerator the jar should be first brought to room temperature. Not used left-overs should not be put back into the original jar as this can provoke a minimisation of the adhesive quality.

This is how you order your SMT-Adhesive

Legend	Adhesive type	Row	Colour	Jar capacity	Amount
e.g.	35Z-	5	R	Dispenser 10ccm	5 pieces
	35Z-	30	G	Tin 100g	500g

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