# TECHNICAL DATASHEET

**AVR80 BA GEL** May 2025

GEL ACRYLIC REMOVABLE COATING

## PRODUCT DESCRIPTION

AVR80 BA GEL is a non toxic, flexible transparent acrylic coating for the protection of electronic circuitry formulated to meet the highest resistance requirements.
It permits to make dam ot high thickness deposit.
AVR80 BA GEL is reparable and can be removed with ABchimie SND or DNS (100% Ozone Friendly)

## FEATURES

- Excellent adhesion under all climatic conditions,
- Fluoresces under UV light as an aid to inspection,
- Wide temperature range -65°C to +150°C,
- Can be soldered through without fear of highly toxic gases being produced,
- Resistant to mould growth,
- Can be totally removed with ABchimie SND or ABclean,
- Compatible with other high specification acrylic coatings,
- Excellent Dielectric properties.

## APPLICATION

Workshop temperatures of less than 16°C or relative humidities in excess of 75% are unsuitable for the application of AVR80 BA GEL.

Before coating Pcbs must be clean, dry and without moisture. The CI being humidity sensor, it is important to remove it before coating. A passage in oven from 1 to 2 hours at 60°C is generally enough.

AVR80 BA GEL contains a UV trace which allows inspection of the PCB after coating to ensure complete and even coverage. The stonger the reflected light, the thicker the coating layer is.

### *Drying Times and Curing Conditions*

AVR80 BA GEL will be touch dry after few minutes at room temperature and does not require a thermal cure. The full properties of AVR80 BA will be obtained after a 24 hours at room temperature.

***Remove AVR80 BA GEL****

AVR80 BA GEL can be soldered through. But, if necessary, it can be easily removed with SND or ABclean solvent.
To remove AVR80 BA GEL, dip the full PCBA into a bath of solvent during 3 to 10 minutes (depending the thickness of the gel). Then, brush it and after that rince the PCB with clean solvent.

To remove AVR80 BA GEL locally, use SND400B or ABclean400B (aerosol) and work with absorbent paper to eliminate all the gel.

## PROPERTIES

***Liquid AVR80 BA GEL***

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|---|---|
| Color: | Transparent, blue reflection |
| Non-volatil %: | Around 40% |
| Density @ 20°C: | 0.95 |
| Viscosity @ 20°C: | Thixotropic |
| Drying time | <30 min by touch |
| | Completed cured at 24h |

***Cured AVR80 BA GEL***

| | |
|---|---|
| Colour: | White - translucent |
| Dielectric Strength: | 50 kV/mm |
| Insulation resistance (Ω) | $10^{12}$ Ω (*MIL-I-46058C*) |
| Dielectric withstanding voltage | > 1500V (*MIL-I-46058C*) |
| Temperature Range: | -65°C to +150°C |
| Glass Transition Temperature (Tg) | 29°C |
| CTI | >600 (*DIN EN 60112 on FR4*) |
| Damp heat test | 85°C, 85%RH, 1000h (*IEC 600068-2-67)* |
| Salt Mist Test | 35°C, 5% salt, 48h (*IEC 60068-2-11)* |
| VRT | -55°C +125°C, 20 cycles, pente 10°C/mn |
| Thermal shock | -65°C +125°C, 100 cycles, (*IPC CC 830*) |
| | -40°C +105°C, 1500 cycles (*IEC 60068-2-14*) |
| Flowing mix gas | OK (*IEC 60068-2-60*) |

*(4 gas test/ 21d, 75% RH; 25°C; C12: 10ppm; No2: 200; H2S 10ppm; SO2 : 200 ppm)*

The conformal coating AVR80 BA GEL is compliance with REACH and RoHS regulations. If you want a certificate, please contact us (info@abchimie.com).

## PACKAGING

***AVR80 BA GEL***

| | |
|---|---|
| 1 Litre Bulk | AVR80 BA GEL 01L |
| Syringe 30 CC | AVR80 BA GEL S30 |

*Please note: Reconditioning in syringes is not recommended as there is a risk of solvent evaporation through the syringe. The date of use for syringe are 3 months only. We recommend cold storage (ideally in the fridge or temperatures below 15 ° C to limit this*

*phenomenon)*

***Acrylic Thinners***

| | |
|---|---|
| 5 Litres | DVA BA 05L |
| 5 Litres | DVA BA R 05L |

***Removal Solvent SND***

| | |
|---|---|
| 400ml Aerosol | SND 400B |
| 5 Litre Bulk | SND 05L |
| 30 Litre Bulk | SND 30L |

***Removal Solvent ABclean***

| | |
|---|---|
| 400ml Aerosol | ABclean 400B |
| 5 Litre Bulk | ABclean 5L |
| 30 Litre Bulk | ABclean 30L |

## ***STORAGE AND SHELF LIFE:***

***Storage:*** Storage temperature: 5 to 30°C
A temporary lower temperature during few days (transport) doesn't distort varnish properties.

***Date by use:*** 12 months after the date of manufacturing for cans.
3 months for syringe 30 CC

*All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification. ABchimie cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.*