



HYSOL® PC62™ TOLUENE-FREE ACRYLIC CONFORMAL COATING

Hysol® PC62™ is a one-component solvent-based acrylic conformal coating that provides environmental and mechanical protection for printed circuit boards (PCBs). Designed as a toluene-free alternative, the product delivers the obvious benefits of a non-toluene material, but with all of the quick drying advantages of a traditional toluene-based system.

With increasing pressure to eliminate toluene-based conformal coatings, there have been numerous attempts to develop alternative systems. While there are toluene-free options on the market, many of these materials do not deliver the performance advantages required for modern manufacturing conditions. PC62™ has been formulated as a toluene-free system that offers all of the wetting, fast drying, and good dispense capabilities consistent with traditional materials.

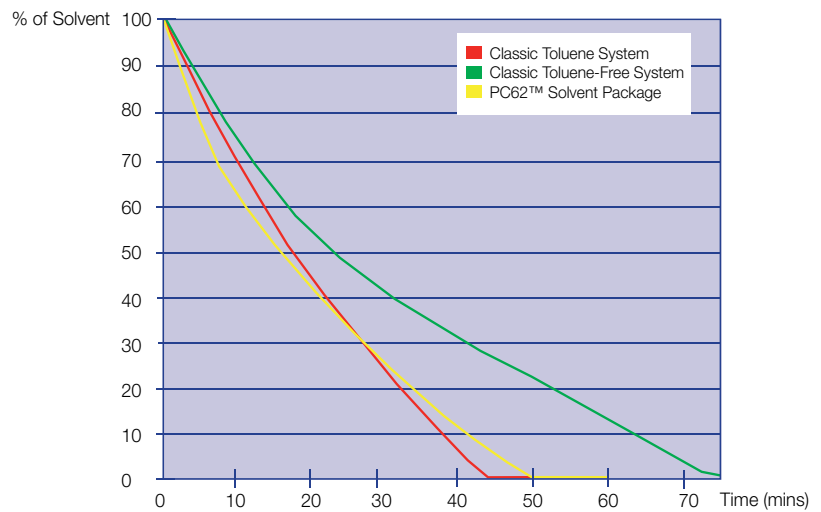
Hysol® PC62™ has been specifically engineered for those electronics manufacturers that cannot move to the current solvent-free systems but want to eliminate toluene from their manufacturing operations.

Designed for high reliability, Hysol® PC62™ is ideal for any environment where a printed circuit board will be subjected to harsh conditions, particularly automotive, military, aerospace, industrial and consumer avionics applications.

Comparative solvent drying times

The plot below illustrates the comparative drying times between a classic toluene-based system and PC62™:

Relative Solvent Drying Times



Product Attributes	Benefits
Toluene-free	Low hazard for end user
Rapid drying	Excellent cycle times
Direct drop-in for toluene systems	Very easy to switch from current material
Acrylic chemistry	Easy to repair
Conforms to UL746C & IPC-CC-830B	Confidence in product performance



Further Product Information

Further information on application suitability, dispensing, cleaning and reworking is available upon request.

PROPERTIES OF LIQUID MATERIAL

Color	Colorless
Solids Content, %	23.0 to 26.0
Specific Gravity @25°C	0.81 to 0.83
Viscosity @25°C Brookfield LV Spindle 1, Speed 30, cPs	40 to 65

PROPERTIES OF DRIED MATERIAL

Physical	Film Thickness	Adjustable from 25µm - 100µm (0.001 - 0.004inches)	Electrical	Insulation Resistance, ohms (~50µm film / 25°C - 50 % R.H)	>2.3 x 10 ¹⁴
	Fluorescent	Positive when viewed with ultraviolet light (black light)		Volume Resistivity, ohm/cm	1.04 x 10 ¹⁶
	Fungus Resistance	Non-nutrient per ASTM G21		Dielectric Strength, kV/mm	78
	Continuous Operating Range	-40°C to 125°C		Dielectric Constant (100 kHz)	2.29
				Dissipation Factor (100kHz)	0.12

APPLICATION

- Ideally applied via non-atomised selective film coater. Do not use hand gun spray tool as this will lead to clogging of the nozzle. Substrate cleanliness is paramount in promoting adhesion and preventing underfilm corrosion of copper conductors. Furthermore, compatibility (with other assembly components (e. g. , solder paste and flux), should always be verified.

Nominal Settings (Asymtek Model C-341):

Attribute	Value
Applicator Head	Film Coater
Nozzle	120071
Fluid Pressure	35 psi
µ Adjust	One Turn
Dispense Speed	500 mm/s
Dispense Height	10 mm
Fan Width	10 mm
Wet Film Thickness	200 µm
Approximate Dry Film Thickness	50 µm

(Setting given as a guideline only.)

DRYING

- Drying of the coating depends upon solvent evaporation. For optimum performance, boards should be air dried at 25°C to remove solvents before final drying in oven (or before applying additional coats).

Drying schedules

Tack free time on glass plate: (~25°C / ~35% RH / 120 µm wet film)	< 5 min
Recommended drying time/temp:	45 min at 75°C
Alternate drying time/temp:	24 hours at 25°C
Optimum properties, hours (25°C):	24

Optimization of the drying schedule may be possible but is ultimately determined by the design of the circuit board.

PACKAGING

- PC62™ is supplied in 5-liter metal cans.
- PC62™ is also available in an aerosol format.

STORAGE

- PC62™ should be stored between 5°C and 30°C. Shelf life is 12 months, provided material is stored tightly sealed in the original container.

CLEANING / DILUTING

- A solvent for cleaning and diluting PC62™ is available upon request.



Across the Board,
Around the Globe.



www.henkel.com/electronics

Henkel Americas: +1 949 789 2500
15350 Barranca Parkway
Irvine, CA 92618

Henkel Europe: +44 1442 278 000
Hemel Hempstead, GB-Hertfordshire
HP2 4RQ United Kingdom

Henkel Asia: +86 21 2891 8000
928 Zhangheng Road, Zhangjiang Hi-Teck Park
Pudong New District Shanghai, 201203, P.R. China