Process Applications Data Sheet – Surclean Screenclean 500

Surclean Screenclean 500-General Description.

Surclean Screenclean 500 is a high performance Aqueous based cleaner for fast, effective removal of uncured Solder Paste and Adhesive residues from Screens, Stencils and associated tooling. It also has some applications in removal of residues from misprinted PCB's. Because it is free from Surfactants it does not degrade in use. Screenclean 500 is available as a concentrate or pre-diluted ready for use, according to the type of cleaning system and the residues to be removed.

Main Characteristics of Screenclean 500

1) Powerful action with the cleaning power of Solvent Cleaners combined with the safety and environmental advantages of Aqueous based materials.

2) Wide range of process applications from manual cleaning and batch type methods, through to fully automated screen cleaning systems. Usable from 20 deg. C through to 45 deg. C.

3) Cleans a wide range of residues and will not foam or leave white residues after rinsing.

4) Environmentally safe. SC 500 is free of Surfactants, Inorganic salts and Halogenated Compounds. SC 500 is classified as an Ultra low VOC content material and it has an ODP potential of 0. Surclean SC 500 is 100% Bio-degradable.

5) Economical in use. SC 500 is diluted with water for many of the listed applications

6) Safe and pleasant to use. SC 500 is very low odour, non flammable and has very low toxicity.

7) Exceptionally good compatibility with Screen and Stencil attachment adhesives. PH neutral formulation prevents damage to Screen and Stencil Frames.

General Process Application Data

Surclean Screenclean 500 is designed for use in a wide range of processes. Process times will vary according to process and residue characteristics. Screenclean 500 can be used in a contaminated state until residue saturation inhibits cleaning or the rinse stage is unable to cope with contamination levels. Recirculation of the solution through filters down to 5 Microns will extend its working life. When diluted the level of Screenclean 500 concentrate will vary according to requirements but is typically a minimum of 15% and up to a maximum of 30% in DI water. Rinsing of Stencils can be carried out using Town water. Rinsing of misprinted PCB's with D.I. water is preferable.

Processing-Cleaning-Immersion type systems

Fully immerse Screen in the cleaning tank. SC 500 must be heated to a min. temp. of 20 degrees C. A reduction in cleaning time is possible if the temperature is increased up to a maximum of 45 deg. C. Agitation of the solution using spray under immersion or ultrasonics where available is beneficial. Process times vary according to the residue and cleaning process but are typically 3 to 12 minutes.

Processing-Cleaning-Spray type systems.

Process times depend on the throughput speed and spray characteristics of the particular equipment but all the process parameters shown for immersion cleaning can be used as a guide. SC 500 does not show tendancies to produce micro aerosols, however process fume extraction should be utilized.

Screenclean Applications Data Sheet – Pg. 2

Processing-Stage 2-Rinse
Rinse using Townwater or DI water at ambient temperature. Typical rinse time 3 to 5 minutes.

Processing-Stage 3-Drying
Dry using hot air at a minimum temperature of 80 deg. C. Drying time typically 5-10 minutes.

Cleaning Applications-residue types

Residue	Cleaning ability
Low solids Flux residues.	Acceptable
Rosin/Modified Resin based Flux residues.	Good.
Water Soluble Flux residues.	Good.
Misprinted Solder Paste.	Very good.
Uncured Misprinted Adhesive.	Very good.

Screenclean 500-Physical Characteristics

Relative Density (gms/cubic CM) measured at @ 20 deg. C	0.92
Surface Tension (mN/m) measured at @ 25 deg. C	30.0
Boiling range.	93-225
Flash point.	None
Flammability.	Non Flammable
Ph Value.	Neutral.
Operating temperature range.	20-45 deg. C
Solubility in water.	Miscible
Typical dilution ratios.	15% min. up to 30% max.

Maintainance of Screenclean 500 Solution
Screenclean 500 can be used in a contaminated state until residue saturation levels cause either a fall off in cleaning action or the rinse section is no longer able to rinse the cleaning solution and contaminent away. Determining this point is by experience, but heavily contaminated fluid can still work quite acceptably. Contamination levels can be monitored by visual observation and by spot PH testing to determine the level of flux activation acids dissolved within the cleaningsolution. By correlating PH readings and observations of cleaning and first stage rinse performance, a repeatable process control procedure can be established allowing timely replenishment of the solution without undue waste.

Disposal actions
Dispose of in accordance with local authority trade effluent license conditions or by specialist waste collection contractors, e.g. Biffa PLC.