Lackwerke Peters GmbH + Co KG
Hooghe Weg 13, 47906 Kempen
Internet: www.peters.de
E-Mail: peters@peters.de
Telefon (0 21 52) 20 09-0
Telefax (0 21 52) 20 09-70
Ein Unternehmen der PETERS-Gruppe

PETERS
Speziallacke für die Elektronik

S2 **SURVEY REPORT**

Group 2

Circuit printing lacquers

This survey report gives a comprehensive overview of product group 2. For further information please refer to the technical reports (TR) and application information sheets (AI), in which the mentioned products are described in detail.

For more extensive advice, our application technology department (ATD) is at your disposal at any time.

The first column of this survey corresponds to the order in which our technical reports (TR) are filed in the report manual and/or supplements and new technical reports are to be added. Thus this survey also serves as a table of contents of product group 2.

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1. Application information sheets

Application **I**nformation sheets (**AI**) apply to various lacquers/lacquer series' and supplement the Technical Reports on these lacquers by giving detailed explanations of possible application procedures and individual process steps plus offering numerous practical tips and advice to safeguard the optimum processing of our products.

The associated Technical Reports provide - in a concise and clear manner - numerous characteristics and processing data in transparent diagrams, graphics and tables.

Currently the following application information sheet for group 2 is available:

AI 2/1 "Processing information for the photoimageable solder resists of the series' **ELPEMER® 2467**, **ELPEMER® 2469** and **ELPEMER® 2463 FLEX**".

2. Etch and plating resists

2.1 General characteristics

- high definition enables the representation of fine conductors
- UV and thermal curing
- excellent adhesion and high surface hardness
- the flake strippable etch and plating resists (index FS) offer the advantage that the flakes can be removed from the stripper medium by means of filters so that the waste water contamination is reduced and the service life of the stripping solution increased.

2.2 Special characteristics of the liquid ELPEMER® photoresists

- owing to their outstanding resolution, even ultra-fine conductors < 50 µm can be represented with the photoimageable resists of the series ELPEMER®
- particularly suited for the production of multilayer inner layers.

2.3 Product-specific characteristics

Product (series)	Special properties
Etch resist for plated-through holes: hole filler **SD 2002 TMP**, colourless	• application by screen printing • oven curing • to fill plated-through holes in double-sided pcbs for safe protection in the etching process • temporary hole filler (Index **TMP** = **t**e**mp**orary), is stripped after etching in alkaline media together with the subsequently printed etch resist
Etch and plating resist **SD 2050 UV**, blue	• application by screen printing • **UV** curing (index **UV**) • suited for 150 µm technology • resistant up to pH 9 • very easily stripped in alkaline media
Etch and plating resist **SD 2051 UV-AL-FS**, blue	• application by screen printing • **UV** curing (index **UV**) • suited for 150 µm technology • can be used to etch 400 µm copper • resistant to acid etching and plating baths • very easily stripped in **al**kaline media (index **AL**) • index **FS** = **f**lake **s**trippable

Product (series)	Special properties
Etch resists of the **series SD 2052 AL** SD 2042 AL, black SD 2052 AL, blue	• application by screen printing • air and oven drying • resistant up to pH 9 • easily stripped in **al**kaline media (index **AL**)
Etch and plating resist **SD 2053 UV-AL**, blue	• application by screen printing • **UV** curing (index **UV**) • suited for 150 µm technology • resistant to acid etching and plating baths • very easily stripped in **al**kaline media (index **AL**)
1-pack photoresist ELPEMER PETERS **RC 2054 HR,** blue transparent	• application by **r**oller **c**oating (index **RC**), curtain coating, dipping, spray coating • **photoimageable** etch resist • no fillers and pigments, thus high productivity and no disturbing sediment in developer, thus little cleaning work required • fast drying and very low exposure energy • significant colour change during exposure from colourless to blue-violet ensures good visual control • excellent resolution (< 50 µm, index **HR** = **h**igh **r**esolution) • aqueous-alkaline developable • resistant to acid etching baths • strippable in small, easily filtered flakes
1-pack photoresists of the **series** ELPEMER PETERS **SD 2054** SD 2054, blue transparent SD 2054 I, colourless/blue-violet	• application by screen printing • **photoimageable** etch and plating resist • similar to **RC 2054 HR**, but applied by screen printing • **SD 2054 I** contains a colour **i**ndicator (index **I**): colour change from colourless to blue-violet during exposure
Etch resist **SD 2058 UV-FS**, blue	• application by screen printing • **UV** curing (index **UV**) • suited for 150 µm technology • resistant to acid etching baths • fast curing and strippability • strippable in alkaline media • index **FS** = **f**lake **s**trippable
Etch and plating resists of the **series SD 2059 UV-AL** SD 2059 UV-AL, blue SD 2059 UV-AL-T, blue	• application by screen printing • **UV** curing (index **UV**) • suited for 150 µm technology • resistant to pH 9 • very easily stripped in **al**kaline media (index **AL**) • index **T** = **t**hixotropic

Product (series)	Special properties
Plating resist **SD 2149 SIT**, black	• application by screen printing • oven curing • for use in **S**econdary **I**maging **T**echnology (**SIT**) • protects metal surfaces during the electroless Ni/Au process (ENiG) and thus enables an additional finish to Ni/Au (as a rule OSP surfaces, OSP = Organic Solderability Preservative) • pleasant odour • broad process window • good adhesion to copper and solder resists
Etch and plating resist **SD 2150 UV-AL-FS**, blue	• application by screen printing • **UV** curing (index **UV**) • enables representation of fine conductors up to 250 µm • perfectly suited for flexible circuits and for roll-to-roll application • resistant to acid etching and plating baths • very easily stripped in **al**kaline media (index **AL**) • index **FS** = **f**lake **s**trippable
Etch and plating resist **SD 2153 AL-BS**, blue transparent	• application by screen printing • suited for 150 µm technology • resistant to acid etching and plating baths • also resistant to gold plating baths • easily stripped in **al**kaline media (index **AL**)
Wepelan plating resist **SD 2154 E**, blue	• application by screen printing • air or oven drying • outstanding resistance over the entire pH range • very good resistance to cyanide baths • index **E** = **e**lastic • strippable in esters and ketones

3. 1- and 2-pack ELPELECT® dielectrics

3.1 General characteristics

- insulating layer in the sequential fabrication of multilayer circuits (SBU = sequential build-up technology)
- suited for laser ablation with CO2, Nd-YAG and Eximer lasers
- finest structures can be represented without any problems
- very good adhesion of the subsequent metal plating (> 10 N/cm).

3.2 Product-specific characteristics

Product (series)	Special properties
1-pack dielectric **ELPELECT® GL 2230 LA,** dark-red transparent	• application by curtain coating • **l**aser-**a**blatable (index **LA**) • free of halogenated flame retardants • corresponds to best flame class V-0 acc. to UL 94
2-pack dielectric **ELPELECT® SD 2230 LA,** dark-red transparent	• same as **GL 2230 LA**, but applied by screen printing

4. Via hole fillers

4.1 General characteristics

- prevent the penetration of solder to the component side and the settling of flux residues in the holes
- ensure the sealing of via holes for vacuum adaption during in-circuit testing.

See also section 10 ”Plugging pastes”.

4.2 Product-specific characteristics

Product (series)	Special properties
Via hole fillers of the **series SD 2361** SD 2361, green SD 2361 T, green	• application by screen printing • safe closing of via holes • 100 % solids content means practically no volume shrinkage • the **t**hixotropic adjustment (index **T**) is suited for larger holes (> 0.5 mm) • **approval: best flame class V-0 acc. to UL 94**, Approbation No. File E 80315

5. 1-pack solder resists

5.1 General characteristics

- UV curing, high curing speed
- 100 % solids content, thus no drying on screen
- easy to print; can thus be processed at high squeegee/printing speeds
- low odour.

5.2 Product-specific characteristics

Product (series)	Special properties
1-pack solder resists of the **series SD 2368 UV**, transparent SD 2308 UV-SM, colourless SD 2348 UV-SM, black SD 2368 UV-SM, green SD 2368 UV-SM-DG, dark-green SD 2368 UV-HFG, green	• application by screen printing • **UV** curing (index **UV**) • for copper conductors of up to 70 µm • transparent • perfect curing even in thicker layers • suited for the Hot-Air Levelling process • **approval for the colourless and green adjustments: best flame class V-0 acc. to UL 94,** Approbation No. File E 80315 • indices: **SM** = **s**ilk-**m**at; **SG** = **s**ilk-**g**lossy; **DG** = **d**ark-**g**reen; **HFG** = **h**alogen-**f**ree **g**reen
1-pack touch-up lacquer **SD 2369 UV-ABL**, yellow-green transparent	• application by screen printing or brush • **UV** curing (index **UV**) • transparent lacquer for eliminating minor mechanical defects (index **ABL** = touch-up lacquer) • especially suited for all yellow-green solder resists of the series’ **ELPEMER® 2467** and **ELPEMER® 2469**

6. Conventional solder resists and ELPEMER® photoimageable 2-pack solder resists

6.1 General characteristics

- excellent printing properties, even in the case of high conductors
- enable so called mass soldering and selective soldering at the same time
- absolutely non-bleeding
- for rigid and flexible circuits
- low solvent content (low VOC; VOC = Volatile Organic Compound), high solids content
- excellent adhesive strength.

6.2 Special characteristics of the ELPEMER® photoimageable solder resists

- virtually vertical sidewalls enable the representation of finest structures, for instance 50 µm solder dams between SMD pads
- very short processing times
- very high processing reliability
- very low exposure energy
- aqueous-alkaline or polyalcohol developable
- good thermal cycling resistance and high temperature resistance
- compatible with lead-free soldering processes
- best resistance to electroless and electro plating finish processes
- ® approval: best flame class V-0 acc. to UL 94, Approbation No. File E 80315
- meet IPC-SM-840 C and Bellcore GR 78 CORE specifications
- mould-resistant in accordance with IPC-SM-840 C, item 3.4.6, and DIN IEC 60068-2-10.

Please read the advice in our Application Information AI 2/1 (see also section 1).

6.3 Product-specific characteristics

Product (series)	Special properties
2-pack solder resist **SD 2444 NB-M**, black	• application by screen printing • excellent adhesive strength and resistance to soldering processes • no light reflection, therefore especially suited for use in optoelectronics • index **NB** = **n**o **b**leeding; **M** = **m**at
2-pack solder resists of the series **SD 2460 FLEX** SD 2420 FLEX, amber transp. SD 2460 FLEX, green transp.	• application by screen printing • can already be cured at 80 °C • excellent adhesion to polyimide and polyester films (index **FLEX** = for **flex**ible circuits) • **approval: best flame class V-0 acc. to UL 94** for **SD 2460 FLEX**, Approbation No. File E 80315 • are particularly suited as “top coats” in thick-copper technology (e.g. 400 µm technology) and offer highest reliability for this technology (see also Section 8 “Thick film filler”)

Product (series)	Special properties
2-pack solder resists of the **series SD 2460/201 UV-FLEX** SD 2450/201 UV-FLEX, blue SD 2460/201 UV-FLEX, green SD 2490/201 UV-FLEX, white	• application by screen printing • **UV** curing (index **UV**) • resistant to Hot-Air Levelling • excellent adhesion to polymide, polycarbonate and polyester films (index **FLEX** = for **flex**ible circuits) • suited for cross-over technology • **approval for SD 2460/201 UV-FLEX: best flame class V-0 acc. to UL 94,** Approbation No. File E 80315
2-pack solder resist **SD 2450/201 UV-COT**, blue	• application by screen printing • **UV** curing (Index **UV**) • resistant to Hot-Air Levelling • particularly suitable for use on rigid pcbs in **C**ross-**O**ver-**T**echnology (Index **COT**): when used as an under or overcoat compatible with numerous conductive pastes (silver-, carbon- and particularly copper-conductive pastes)
2-pack solder resists of the **series SD 2462 NB** and **SD 2462 NB-M** SD 2462 NB, green SD 2462 NB-T, green SD 2402 NB-M, colourless SD 2432 NB-M, red SD 2442 NB-M, black SD 2452 NB-M, blue SD 2462 NB-M, green SD 2462 NB-M-YG, yellow-green SD 2452 NB-M/550, blue SD 2462 NB-M/550, green	• application by screen printing • outstanding definition and excellent edge coverage • outstandingly high adhesive strength • on account of its excellent adhesive strength, in combination with the thick film filler **DSF 2706 UV SD 2462 NB-M** is particularly suitable as a “top coat” in thick-copper technology (e.g. 400 µm technology) (see also section 8 “thick film fillers”) • excellent chemical resistance • partially **approval: best flame class V-0 acc. to UL 94,** Approbation No. File E 80315 • indices: **NB = n**o **b**leeding; **T = t**hixotropic; **M** = **m**at; **YG =** yellow-green; **550** = viscosity **550** dPas (highly viscous)
2-pack solder resists of the **series SD 2463 FLEX-HF** SD 2423 FLEX-HF, amber SD 2463 FLEX-HF, green	• application by screen printing • highly-flexible, thus particularly suitable for printing on flexible base materials, (Index **FLEX** = for **flex**ible circuits) • **photoimageable** • excellent resolution up to 30 µm • aqueous-alkaline developable • halogen-free per JPCA-ES-01-1999 • **approval: best best flame class V-0 acc. to UL 94**

Product (series)	Special properties
2-pack solder resists of the **series 2467** AS 2467 SG-DG AS 2467 XM-DG AS 2467 XM-XG ES 2467 SG-DG GL 2467 SG-DG GL 2467 SG-GG GL 2467 SG-XG GL 2467 SM-DG GL 2467 SM-GG SD 2467 SG-DG SD 2467 SG-GG SD 2467 SG-XG SD 2467 SM-DG SD 2467 SM-GG SD 2467 SM-XG SD 2467 SM-YG SD 2467 XM-DG	• suitable for all common application purposes • **photoimageable** • aqueous-alkaline developable • **UL approval: best flame class V-0 acc. to UL 94** • many types available as halogen-free adjustments acc. to JPCA-ES-01-1999 • indices: **AS** = **a**ir spray, **ES** = **e**lectrostatic **s**pray, **GL** = curtain coating, **SD = s**creen printing, **SG** = **s**ilk-**g**lossy; **SM** = **s**ilk-**m**at; **DG** = **d**ark-**g**reen; **GG** = **g**rass-**g**reen;**YG** = **y**ellow-**g**reen; **XM** = e**x**tra-**m**at; **XG** = e**x**tra dark-**g**reen • available **special colour adjustments** AS 2447 XM, black AS 2497 SM, white SD 2407 SM, colourless SD 2417 SG, yellow transparent SD 2427 SG, amber SD 2437 SM, red transparent SD 2447 SM, black SD 2447 XM, black SD 2457 SM, blue transparent SD 2497 SM, white
2-pack via hole fillers of the **series VF 2467** VF 2467 DG VF 2467 LYG	• application by screen printing • **photoimageable** via hole filler (index **VF** = **v**ia **h**ole filler) • compatible with the solder resists of the series 2467 • aqueous-alkaline developable • **UL approval: best flame class V-0 acc. to UL 94** • indices: **VF** = **v**ia hole **f**iller; **DG** = **d**ark-**g**reen; L**YG** = **l**ight-**y**ellow-**g**reen
2-pack touch-up lacquer **AL 2468 YG**	• application by brush • yellow-green transparent lacquer for eliminating minor mechanical defects (index **AL** = touch-up lacquer) • based on the 2-pack solder resists of the series **SD 2468 NB** • index **YG** = **y**ellow-**g**reen
2-pack solder resists of the **series SD 2468 NB** and **SD 2468 NB-M**	• application by screen printing • available in various colour adjustments • partially **UL approval: best flame class V-0 acc. to UL 94,** Approbation No. File E 80315 • **SD 2468 NB-M-HV/50** is specially suited for coating backpanels • indices: **NB** = **n**o **b**leeding; **M** = **m**at We also draw your attention to the newer series **SD 2462 NB** and **SD 2462 NB-M**.

Product (series)	Special properties
2-pack solder resists of the **series SD 2468 NB-M/21**	• application by screen printing • very good adhesion to metals such as Sn, Pb/Sn and Ni • excellent printing properties, for instance over high conductors (70 µm) and in tight conductor spaces • available in various colour adjustments • partially **approval: best flame class V-0 acc. to UL 94,** Approbation No. File E 80315 • indices: **NB** = **n**o **b**leeding; **M** = **m**at
2-pack solder resists of the series **2469 SM**, yellow-green AS 2469 SM ES 2469 SM GL 2469 SM SD 2469 SM	• suitable for all common application purposes • **photoimageable** • extremely broad processing window • polyalcohol developable, preferably in butyl carbitol or carbitol • excellent resistances and electrical properties • **-approval: best flame class V-0 acc. to UL 94** • approved by numerous leading electronics manufacturers • Indices: **AS** = **a**ir spray, **ES** = **e**lectrostatic **s**pray, **GL** = curtain coating, **SD = s**creen printing, **SM** = **s**ilk-**m**at
2-pack solder resist **SD 2494 NB-SM**, white	• application by screen printing • excellent adhesive strength • owing to excellent resistance to yellowing and good light reflection application in optoelectronics and automobile electronics (instrument panels) • **approval: best flame class V-0 acc. to UL 94,** Approbation No. File E 80315 • indices: **NB** = **n**o **b**leeding; **SM = s**ilk-**m**at

7. Marking inks

7.1 General characteristics

- excellent definition
- high solids content
- outstanding covering power
- very good adhesive strength
- solder bath resistant.

7.2 Special characteristics of the ELPEMER®photoimageable marking inks

- the excellent resolution of the photoimageable ELPEMER® marking inks enable the representation of finest details
- no time- and cost-consuming fabrication of screen stencils
- aqueous-alkaline developable
- excellent colour stability even after the soldering process.

7.3 Product-specific characteristics of the 1-pack marking inks

Product (series)	Special properties
1-pack marking inks of the **series SD 2513 UV** SD 2513 UV, yellow SD 2543 UV, black SD 2593 UV, white	• application by screen printing • **UV** curing (index **UV**) • 100 % solids content • short curing times • high colour stability
1-pack marking ink **IJ 2595 UV**, white	• application by means of the ink jet process, no satellite effect • **UV** curing (Index **UV**), no thermal final cure required • short curing times • free of **VOCs** (**V**olatile **O**rganic **C**ompounds**)**

7.4 Product-specific characteristics of the 2-pack marking inks

Product (series)	Special properties
2-pack marking inks of the **series SD 2615** SD 2615, yellow SD 2615 T, yellow SD 2645, black SD 2695, white SD 2695 T, white SD 2695 HT, white	• application by screen printing • available in various thixotropic adjustments: **T** = **t**hixotropic; **HT** = **h**ighly **t**hixotropic • free of lead chromate • fast curing • excellent chemical resistance • very good adhesive strength
2-pack marking inks of the **series SD 2617** SD 2617, yellow SD 2617 HV, yellow SD 2617 SF, reddish-yellow	• application by screen printing • free of lead chromate and amine • long pot life / processing time (at least 1 month) • indices: **HV** = **h**ighly **v**iscous; **SF** = stronger colour
2-pack marking inks **SD 2618 and SD 2698** SD 2618, yellow SD 2698, white	• application by screen printing • **photoimageable** • free of lead chromate • particularly suited for pilot and low-volume series' since no need for expensive screen stencils • representation of finest details (50 µm) • aqueous-alkaline developable
2-pack marking inks of the **series SD 2692 T** SD 2622 T, orange SD 2632 T, red SD 2642 T, black SD 2652 T, blue SD 2692 T, white SD 2612 T-K, yellow SD 2692 T-K, white SD 2692, white	• application by screen printing • free of lead chromate (except **SD 2622 T**) • long pot life / processing time (at least 6 weeks) • the **c**atalysed adjustments (index **K**) boast a shorter curing time, a considerably improved adhesive strength and have a pot life of one day • excellent definition owing to the high **t**hixotropy (index **T**) • **SD 2692** is not thixotropic and thus suited for overprinting closely spaced conductors • excellent chemical resistance

8. Thick film fillers

8.1 General characteristics

- to fill the spaces between high traces in thick copper technology (for instance 400 µm technology)
- solvent-free
- ideal basis for the subsequent solder resist coating
- very good solder bath resistance
- also compatible with lead-free soldering processes
- flexible, thus suited for use on so-called “static flex“ circuit boards (printed circuit boards that are subjected to just one or very few bending stresses, for instance during installation).

8.2 Product-specific characteristics

Product (series)	Special properties
Thick film filler **DSF 2706 UV**, colourless	• application by screen or stencil printing • **UV** curing 2-pack system (index **UV** = UV curing) • **UL approval acc. to UL 94**, Approbation No. File E 80315 • free of halogenated flame retardants • halogen-free acc. to JPCA-ES-01-1999 • forms a system in thick-copper technology in combination with the 2-pack solder resists **SD 2460 FLEX** or **SD 2462 NB-M** as “top coats”
Thick film filler **DSF 2707 UV**, colourless	• application by screen or stencil printing • **UV** curing 1-pack system (Index **UV** = **UV** curing) • **UL approval acc. to UL 94**, Approbation No. File E 80315 • free of halogenated flame retardants • forms a system in thick-copper technology in combination with the 2-pack solder resist **SD 2460 FLEX** as “top coat”

9. Heatsink paste

9.1 General characteristics

- highly thermally conductive system for the thermal management of printed circuit boards and assemblies
- low-cost alternative to conventional heatsinks; problem-free application with existing screen printing technology
- enables the flexible configuration of varying heatsink geometries.

9.2 Product-specific characteristics

Product (series)	Special properties
1-pack heatsink paste **HSP 2741**, black	• application by screen printing • 100 % solids content • high dielectric strength, thus no need for electrical insulation layer between pcb and heatsink • **approval acc. to UL 94,** Approbation No. File E 80315 • German patent already granted, international patents pending

10. Flux stop lacquer

10.1 General properties

- restricts the coating of fluxing agents to defined areas and prevents inadvertent spreading of fluxing agents on the pcb, particularly in SMD areas

10.2 Product-specific characteristics

Product (series)	Special properties
2-pack flux stop lacquer **SD 2792**, white	• application by screen printing • long pot life • high definition print • is applied as a “frame” at a distance of 5 mm around solderpoints • thermal curing

11. Plugging pastes

11.1 General characteristics

- suited for the creation of blister-free, smooth hole fillings in buried vias
- enable the application of smooth insulating layers in SBU technology
- 100 % solids content
- low coefficient of thermal expansion, no cracking or delamination of the layers applied
- metallisable
- **PP 2795-SD** for screen printing and **PP 2795** for roller coating have been awarded the best flame class V-0 in accordance with UL 94, Approbation No. File E 80315
- the plugging pastes **PP 2795-SD** and **PP 2795** are suitable for use in space electronics. These products are listed as approved materials in the NASA specification D-8208 "Spacecraft Design and Fabrication Requirements for Electronic Packaging and Cabling; Section 3.6, Printed Wiring Boards; Table 3.6-5: Acceptable Via Hole-Fill Material"
- the pluggable diameter depends on the “aspect ratio” of the plated-through holes to be filled (ratio between material thickness and via hole diameter); see also section 10.2 “Product-specific characteristics”.

11.2 Product-specific characteristics

Product (series)	Special properties
Plugging pastes of the **series PP 2795**, white PP 2795 PP 2795 HV	• application by roller coating • plugging of via holes • with the **h**ighly **v**iscous adjustment (index **HV**) extremely thick pcbs can be filled • **PP 2795 HV** can also be applied by means of screen or stencil printing
Plugging pastes of the **series PP 2795-SD** PP 2765-SD, green PP 2795-SD, light-grey	• application by screen printing (index SD = screen printing) • plugging of via holes

12. Carbon-conductive inks

12.1 General characteristics

- excellent definition owing to high thixotropy
- also suited for flexible base material
- excellent adhesive strength and mechanical stability
- resistant to Hot-Air Levelling
- high chemical resistance
- stable electrical resistance even after temperature and moisture stress.

12.2 Product-specific characteristics

Product (series)	Special properties
1-pack carbon conductive ink **SD 2841 HAL-IR**, black, mat, 14-20 Ω/□*	• application by screen printing • very smooth surface, thus suited for sliding contacts • particularly suited for IR drying (index **IR** = **i**nfra**r**ed-curable) • **h**ot-**a**ir **l**evelling resistant (index **HAL**) • can be mixed with 1-pack insulating paste **SD 2801 HAL**, grey, to increase resistance
1-pack carbon-conductive ink **SD 2843 HAL**, black, mat, 13-20 Ω/□*	• application by screen printing • **h**ot-**a**ir **l**evelling resistant (index **HAL**) • high chemical and thermal resistance • particularly long shelf life: 6 months

* resistance related to a square area at a layer thickness of about 25 µm

13. Peelable solder masks

13.1 General characteristics

- for the partial coverage of printed circuit boards as protection from direct contact with solder baths and as protection in plating processes
- very high elasticity and tear resistance
- residue-free removal before and/or after the soldering process.

Please also observe the notes in our **Technical Information sheet TI 15/7 "Selection criteria and processing advice for peelable solder resists (solder masks) of the series SD 2950"** In our report manual this technical information sheet is filed under group 15.

13.2 Product-specific characteristics

Product (series)	Special properties
Peelable solder masks of the **series SD 2950** SD 2950, blue SD 2950 T, blue SD 2952, blue SD 2952 HV, blue SD 2953, blue SD 2962 P, green SD 2962 P/350, green SD 2990 T, white	• application by screen printing • unlimited pot life, as solvent-free • easy to process • **SD 2950/SD 2950 T**: particularly suited for the Hot-Air Levelling process; cannot be peeled until after soldering • **SD 2990 T**: for covering carbon-conductive ink or larger holes • **SD 2962 P; SD 2962 P/350**:suited as masks in electroplating and other metallising processes • **SD 2952; SD 2952 HV**: suited for standard soldering processes, not for overprinting carbon-conductive ink • **SD 2953**: same as **SD 2952**, but with a higher thixotropy • indices: **T = t**hixotropic; **HV = h**ighly **v**iscous; **350** = viscosity of **350** dPas; **P = p**igmented
Peelable solder mask **SD 2954**, blue transparent	• application by screen printing • peelable before and after soldering • very high thermal stability, multiple soldering possible • particularly suited for use in reflow soldering (SMD technology)
Peelable solder mask **SD 2955**, blue-green	• application by screen printing • peelable before and after soldering • very high thermal stability, multiple soldering possible • **high resistance to lead-free soldering processes** • particularly suitable for reflow soldering (SMD technology)

Any questions?

We would be pleased to offer you advice and assistance in solving your problems. Free samples and technical literature are available upon request.

The above information as well as advice given by our Application Technology Department whether in verbal or written form or during product evaluations is provided to the best of our knowledge, but must be regarded as non-binding recommendations, also with respect to possible third-party proprietary rights.
The products are exclusively intended for the applications indicated in the corresponding technical data sheets.
The advisory service does not exempt you from performing your own assessments, in particular of our material safety data sheets and technical information sheets, and of our products as regards their suitability for the applications intended. The application, use and processing of our products and of the products manufactured by you based on the advice given by our Application Technology Department are beyond our control and thus entirely your responsibility. The sale of our products is effected in accordance with our current terms of sale and delivery.

Lackwerke Peters GmbH + Co KG
Hooghe Weg 13, 47906 Kempen

Internet: www.peters.de
E-Mail: peters@peters.de

Phone: 0049-21 52-20 09-0
Fax: 0049-21 52-20 09-70