

EPTAINKS

MEMBRANE
SWITCHES



EPTAINKS

CONDUCTIVE AND
DIELECTRIC INKS



SCREEN INKS



SCREEN
CHEMICALS



MEMBRANE
SWITCHES



FILMS FOR
COVERS AND
CIRCUITS



PHOTOPLOTTER AND
INKJET FILMS FOR
SCREEN PRINTING POSITIVES



ADHESIVES AND
ENCAPSULATINGS



SCREEN CHEMICALS

The quality of printing belongs to the screen quality. Epta Inks – which has more than 50 years of experience in the screen chemicals research, development and manufacturing through the Manoukian-Argon brand - has selected, based on its deep knowledge of the demand of this field, one range of high performance products. The range includes: **three screenmaking** chemicals. The first one, dualcure quality, suitable to print with UV and solvent screen inks. The second one, pure polymer, suitable to get high thickness printing for any screen ink quality and adhesive. Furthermore, since several years of cooperation with **Chromaline**, Epta Inks has selected **two capillary ranges** to match the final user's demand: performing standard and high thickness.

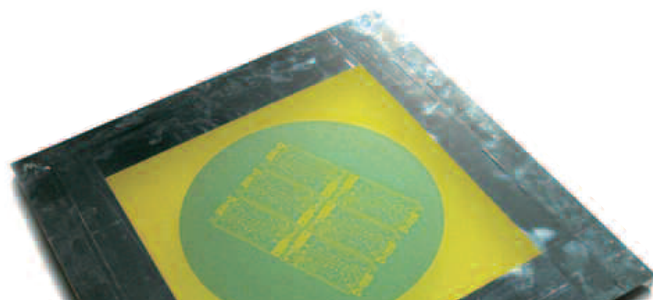
The screen chemicals auxiliaries: a selection of products for screens recovery, in compliance with standards and with "eco" demand.

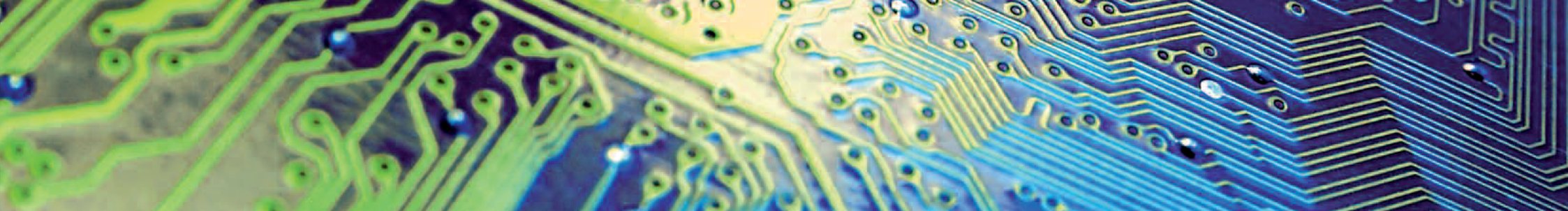
SCREENMAKING CHEMICALS										
ZERO-IN	TECHNICAL CHARACTERISTICS							PROCESS INDICATIONS		
	COLOUR	SOLID CONTENT	VISCOSITY [cPs] @ 25°C	DEFINITION	RESOLUT.	CHEMICAL RESISTANCE	MECHANICAL RESISTANCE	DIAZO-SENSIBILIZ. [Micro]	CATALYST	SECOND EXPOSURE
KS 500	VIOLET	34%	± 7500	5	5	4	5	HD	NO	YES
DUAL SV PLUS	VIOLET	34%	± 7000	5	5	5	4	HD	NO	NO
SPEEDCURE	GREEN	42%	± 12500	4	3	4	4	NO	NO	YES

FILM CAPILLARI	
PRO CAP:	Thicknesses 12-50 micron
PHATFILM:	Thicknesses 100-700 micron

AUXILIARIES		
PRODUCTS	USE	CHARACTERISTICS
TENAX HT	Fabric bonding	Two components
CLEANSER 100	Fabric cleaning	To degrease and to clean

RECOVERY PRODUCTS		
PRODUCTS	USE	CHARACTERISTICS
SCREEN FILLER RED	Imagine correction	
SOLVENT LQ	Screen washing	To remove inks residual
POLISTRIP LIQ. CONC.	Screens recovery	To remove emulsion
POLISTRIP PASTA	Screens recovery	To remove emulsion
SOLVENT STRIP	Screens recovery	To remove emulsion
SOLVENT 610	Screens recovery	To remove emulsion residual
CLEANER STRIP	Phantom Image remover	





PHOTOPLOTTER AND INKJET FILMS FOR SCREEN PRINTING POSITIVES

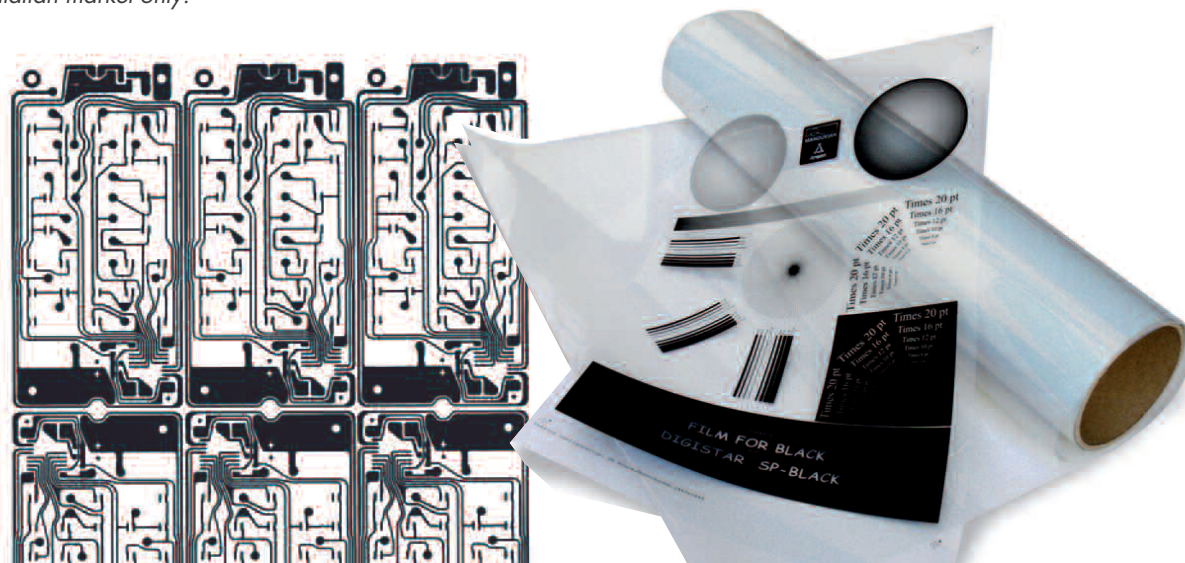
Operating on the printed circuit boards market in the course of many years, Epta Inks has achieved a strong technical experience to get a high quality and reliable proposal of products selection for high technology process to manufacture flexible pcb and electronic boards.

Epta Inks offers a selected and complete range of Silver photosensible films by **AGFA** Agfa brand - in rolls or sheets - together with its rapid and efficient chemicals. To complete the proposal Epta Inks offers also the dry digital version for direct digital printing: **FILM FOR BLACK** when the maximum requested definition is not higher than 1200 dpi.

These products and Inks are available for Italian market only.

SILVER FILMS				
TYPE	THECHNESS mm	LASER SENSIBILITY	SIZES	NOTES
			SHEETS	
RPF 7S	0,18	Red	by 16 x 20" to 28 x 32"	for PCB
HCP - 7S	0,18	Blue - Green	by 16 x 20" to 20 x 24"	for PCB
FILM				
FILM for BLACK	0,12		digital pigment and dye inks	max printing definition <1200dpi

AGFA Agfa



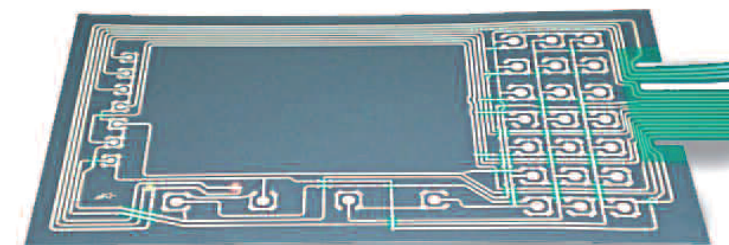


FILMS FOR COVERS AND CIRCUITS

Following a long technical experience Epta Inks has selected the polyester films range to comply with the sophisticated demand of membrane switches manufacturers. To match the diversified market demand Epta Inks range includes a few but versatile products capable to fulfil any printing technology, including the digital printing. Knowing very well the high quality and the professional demand, Epta Inks offers a range of products with amazing technical characteristics: resistance, dimensional stability, multimodal printing, compatibility.

FILM											
FILM	MICRON	TO BE USED FOR	THERMOSTABLE	TEXTURED	SIDES	COATINGS				SIZES	
						PRINTING TECHNOLOGY					
						SCREEN PRINTING		DIGITAL		ROLLS	SHEETS
SOLV.	UV	SOLV.	UV								
TEXT FILM LT	125 -175	COVER	■	■	1	■	■	■	■	YES	YES
TEXT FILM LT [1]	250	COVER	■	■	1	■	■	■	■	YES	YES
TEXT FILM CE	125 - 175	COVER	■	■	1	■	■	■	■	YES	YES
TEXT FILM CE [1]	250	COVER	■	■	1	■	■	■	■	YES	YES
CIRCUITFILM HSPL 20 HT	100 - 125	INNER LAYERS	■	■	2	■	■	■		YES	YES

Legend: ■ =YES ■ =NO [1] on demand





CONDUCTIVE AND DIELECTRIC INKS

Many years of production experience, leading development and supplying of the membrane and pcb market: high quality products, constancy, high level customers' full satisfaction and reliability in time, all these features identify the HENKEL Corporation.

Combined with Epta Inks professional attitude and customer orientation, our offer warrants a high technological package always open to new developments.

The enclosed synoptic table summarizes a limited choice of the most used screen inks for flexible circuits.

These products and Inks are available for Italian market only.

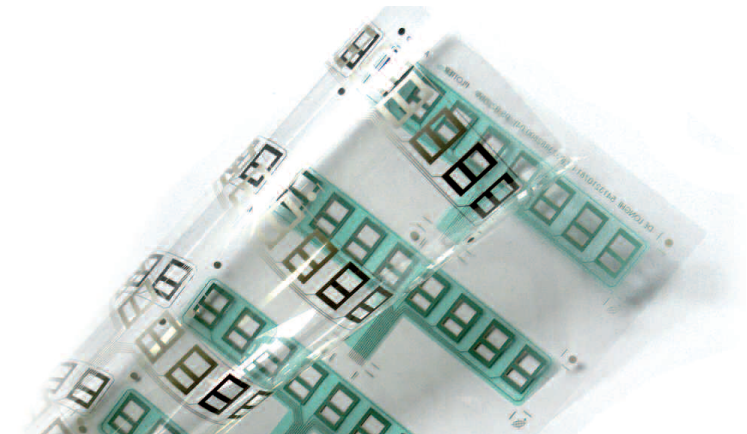
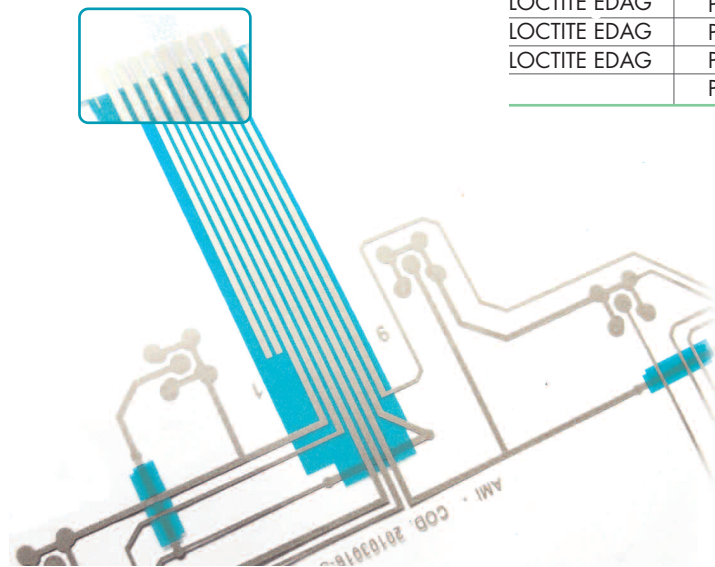
OPAQUE CONDUCTIVES				
SERIES	CODE	USE	RESISTANCE Ω/\square	CONF. KG
LOCTITE EDAG	PF 410	Ag ink base for flexible	0,014	1,50
LOCTITE EDAG	725A (6S-54)	Ag ink base for flexible	0,015	1,0
LOCTITE EDAG	1010	Superconductive Ag ink base for flexible	<0010	1,00
LOCTITE EDAG	418 SS	Ag ink for sensitive film and crossover	<0,03	0,40
LOCTITE EDAG	965 SS	Carbon base mixable with PF 410	< 60	1,00
LOCTITE EDAG	PF 407 A	Carbon base mixable with PF 410	< 20	

NEW

CLEAR CONDUCTIVES				
Lumidag	EL 016	for PET film and ESD	< 10k	
LOCTITE 5000 Series		for PET film and ESD	< 10k	1,00

NEW

DIELECTRICS				
SERIES	CODE	USE	INSULATIN V	CONF. KG
LOCTITE EDAG	PF 452 SS	typical insulation for Ag and carbon inks	> 1.500	1,00
LOCTITE EDAG	PF 455 B	excellent humidity resistance	2500-3000	1,00
LOCTITE EDAG	PF 445 BC	flexible clear	2500-3000	1,00
	PD 038	clear transparent for ITO		





SCREEN INKS

The results reliability depends on the processes knowledge and on the parameters affecting them. You need the best ink to get the best performance. To continue to be reliable Epta Inks, together with **CARBOGLOSS** series, top solvent quality, introduces a new UV inks generation keeping the quality standards of always. Our proposal is completed by the auxiliaries - inks and specific overprint varnishes - to meet the demands required by this market.

INKS													
CLASS	SERIES	FINISH	GENERAL					TECHNICAL SPECIFICATIONS		RESISTANCES			
			COLOUR MATCHING SYSTEM	SERIE TOYS	OPAQUE COLOUR	FOUR COLOUR PROCESS	TRANSPARENT COLOURS	OPACITY	THERMOFORMING	ALCOHOL	DETERGENTS	FUEL	OUTDOOR
SOLVENT	CARBOGLOSS 26.000	G	■	■	■	■	■	4	■	4	4	1	■
	SILVERSHINE	Met G			■			4		2	2	2	■
UV	UV TECH 105.000	G	■	■	■	■		5		4	5	5	■
	UV SHINE SILVER	Met G			■			5		4	4	4	
	UV TECH CLEAR WINDOW	G		■			■	NA		5	5	5	
	UV STONE	M		■				NA		5	5	5	

Legend: ■ = YES G = Gloss M = Matt Met L = Metallized Gloss





ADHESIVES AND ENCAPSULATINGS

Fixing and protection ways of the board parts are countless, likewise are the professionals' attitudes and the techniques chosen for the manufacturing process. Only companies with a great experience, focused to constantly enhance the value of strategic partners, are capable to undertake the most suitable solutions for this market. Epta Inks has chosen HENKEL Corporation.

NOT CONDUCTIVE ADHESIVES

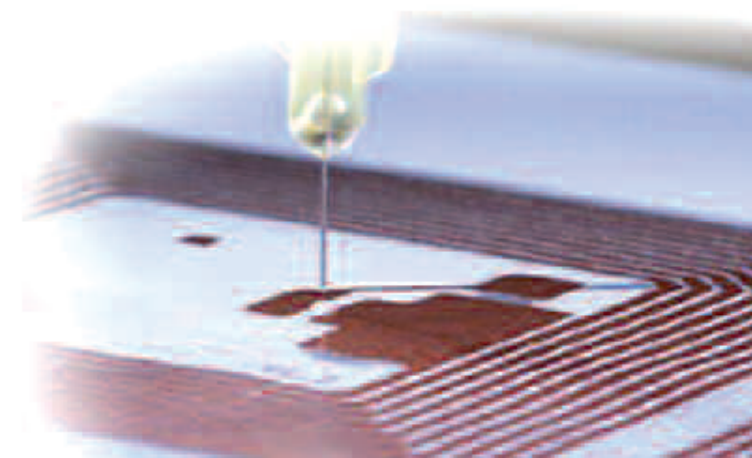
CODE	USE	PACKAGING
ECCOBOND D 125 F	tixotropic adhesive for LED on PET	Syringe 5ml
ECCOBOND UV 9110	tixotropic adhesive for LED on PET	Syringe 10ml

CONDUCTIVE ADHESIVES

LOCTITE 5915	Ag conductive adhesive	100 - 500 gr
LOCTITE 3880	Silver based conductive adhesive	Syringe 5ml

INCAPSULATION

ELECTRODAG PF 021	clear resin for LED encapsulating	1000 gr
ECCOBOND UV 9110	clear resin for LED encapsulating	500 gr



PRODUCTS FOR FLEXIBLE AND RIGID CIRCUITS

Applications

Crossover
Dielectric
Conductive paste
Printed resistance
Conformal coating
Encapsulating

SELECTION FOR PTF					
Product	Application	Pigment	Sheet Resistance [ohm/sq 25µm]	Mq/Kg 10µm	Drying&curing
LOCTITE EDAG PF-410	Premium Silver Ink	Silver	<0,025	~ 15	120°C – 15'
LOCTITE EDAG 725 A	Excellent flexibility Silver Ink	Silver	<0,015	~ 13	120°C – 15'
LOCTITE EDAG 418 SS	Silver ink for crossover	Silver	<0,030	~ 15	120°C – 15'
LOCTITE EDAG 407 A	Graphite standard ink	Graphite	<20	~ 23	120°C – 15'
LOCTITE EDAG 452 SS	UV dielectric green ink		insulating	~ 78	UV 0,5 J/cm2
LOCTITE EDAG PF 455	UV dielectric green ink High umidity protection		insulating	~ 98	UV 0,5 J/cm2
LOCTITE EDAG 1010	High conductivity good flexibility	Silver	<0.007	10.7	120°C – 15'

WHICH SILVER INK TO PRINT	
High conductive circuits	LOCTITE EDAG PF-410
High flexibility films for high conductive circuits	LOCTITE EDAG 725 A – LOCTITE ECI 1010
Conductive circuits onto sensitive substrates(Polycarbonate)	LOCTITE EDAG 418 SS
Crossover	LOCTITE EDAG 418 SS

WHICH INKS FOR	
Printed resistor –PTC inks	LOCTITE EDAG 6017 SS / PM 404 Loctite ECI 8000 series
Contact protection	LOCTITE EDAG 407 A
Dielectric	LOCTITE EDAG 452 SS / PF 455
Transparent conductor inks	LOCTITE EDAG 5000 Series
Medical sensors	LOCTITE EDAG 6037 SS / 6038 SS
Printed Potentiometers for rigid	Minico M 2001 RS MOD2 Series

MEMBRANE SWITCHES

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