

TECHNICAL DATA SHEET

PHOS-PREP® PP983LC LASER OXIDE / IRON PHOSPHATE

PHOS-PREP® PP 983LC is a liquid, iron phosphate process designed to simultaneously degrease, remove the laser oxide from a laser cutting process and phosphate in one operation. The process will treat iron, steel, galvanised steel zintec in mixed metal /batch production.

PHOS-PREP® PP983LC produces a phosphate surface which when finished with powder coating or wet paint systems, substantially increases the adhesion and durability when compared with conventional alkali or solvent cleaned surfaces.

The process gives a coating weight of between 0.2 and 0.5-g/sq m, which meets the requirements of BS3189: 1973 Type 4 and DEF STAN 03-11/1 Class IV.

*for Aluminium preparation please use the solution at 2% strength

Benefits:

Single pack solution for preparation

Able to cope with todays and future production, one process only required.

Low temperature – saves energy – lower fuel bills

Short process time – increased throughput – lower unit costs and higher production

Use:

Stage No	Process Description	Strength (concentration)	Process Time (mins)	Spray Pressure (bar)	Temp (oC)
1	PHOS-PREP® PP 983LC PHOS-PREP® PP 975	6%	1 - 3	1 – 2	30 – 60
2	Running Cold Water Rinse		1.0	1 – 2	Ambient
3	PHOS-PREP® PP 973	0.4%	1.0	1 – 2	Ambient – 60
4	Dry Off		3 - 10		100 – 170

Stage 3: This can be hot or cold and can be demineralised water (recommended in hard water areas) or a PHOS-PREP® PP973 passivation treatment when used in box spray washers
 After rinsing, all pockets of water should be removed by air blow or vacuum before drying.

Chemicals Required

Product Name	Description
PHOS-PREP® 983LC	Laser oxide Iron phosphating chemical
PHOS-PREP® 975	Degrease additive
Phenolphthalein Indicator Solution	For Pointage determination
Bromophenol Blue Indicator Solution	For Free Acid determination
0.1N Sodium Hydroxide Testing Solution	For Pointage determination

For the control of the process, testing equipment will be required **see additional test sheet for PP 983LC

To make up the solution carry out the following instructions:

Clean the tanks and purge if necessary and flush out with clean water.

Determine the working volume of the tank or refer to the relevant Plant Information and Control Summary Sheet.

Fill the tank 75% full with clean water and heat to the operating temperature.

For each 1000 litres of working solution add:

Product Name	Quantity
PHOS-PREP® 983LC	60 litres
PHOS-PREP® 975	3.0 litres If required

Make-up to the normal operating level with clean water. Mix thoroughly and heat to the operating temperature.

Equipment:

Tanks and heating equipment must be fabricated from 316 stainless steel. The spray nozzles should be constructed from either stainless steel or plastic.

Non-ferrous metals must not be used for equipment that will come into contact with the solution.

Efficient extraction is required to remove steam and spray mist.

There should be adequate clearance between heaters and the bottom of the tank to allow sludge to collect undisturbed.

Automatic water top up or a solution level alarm is recommended to avoid excessive concentration fluctuations due to loss of water through evaporation.

Product Safety Data Sheet:

A safety data sheet is available,

PHOS-PREP® PP 983LC is part of the Pre-Treatment Solutions Ltd range of products for the removal of laser oxide on steel zintec and aluminium components.

Pre Treatment Solutions Ltd continues to improve the quality and performance of its range of products and reserves the right to modify product formulations without prior notice.

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