BONDERITE

BONDERITE C-IC 2635
ACID CLEANER
(KNOWN AS POLYPREP CLEANER 2635)

Issued 9/8/2014

INTRODUCTION

BONDERITE C-IC 2635 (known as POLYPREP CLEANER 2635) is a phosphate-free acidic cleaner formulated primarily for cleaning of plastic surfaces. The cleaning solution is used in spray wash systems prior to the application of paint films or other surface treatments. It is suitable for a wide range of plastics including primed and raw SMC, polyurethane and polyurea RIM, ABS, TPO, TPE, PVC and polyethylene.

OPERATING SUMMARY

Chemical:		Bath Preparation per 100 Gallons:
BONDERITE C-IC 2635	17.5 ± 2 pounds	(2.0 ± 0.2 gallons)
Operation and Control:		
Total Acid		12.8 ± 1.5 points
Time		30 to 180 seconds
Temperature		120° to 150°F (49° to 66°C)

MATERIALS

BONDERITE C-IC 2635
Testing Reagents and Apparatus

EQUIPMENT

The process tank, housing, pumps and piping for use with process solution should be constructed of type 316L or 304L stainless steel. A secondary choice is 316 or 304 stainless steel fabricated with approved welding techniques. Nozzles should be fabricated from 316 stainless steel. The heat exchanger should be of polished 316 stainless steel when using steam or hot water heat. If gas fired burner tubes are used, they should also be made of stainless steel. All process circulating pump seals, valve seats, door seals, and other elastomers which come in contact with the working process solution should be EPDM, PTFE or FKM.

All chemical pump seals, valve seats and other elastomers which come in contact with the concentrated solution should be EPDM, PTFE or FKM.

Support equipment available from Henkel for this process includes: chemical feed pumps, level controls, transfer pumps and bulk storage tanks.

Your local sales representative should be consulted for information on Henkel's automatic process control equipment for this process and any additional questions.

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THE PROCESS

The process for cleaning soiled plastics or plastics containing a slight amount of mold release normally consists of the following steps:

A. Preclean (optional)
B. Cleaning with BONDERITE C-IC 2635 solution
C. Water rinsing
D. Recirculated deionized water rinse
E. DI water rinse containing Bonderite rinse aid. Consult your Henkel representative to select the appropriate Bonderite rinse aid to use with your process.
F. Drying

CLEANING WITH BONDERITE C-IC 2635 SOLUTION

Buildup:
Fill the tank about 3/4 full with cold water and heat to 135° Fahrenheit. Add 17.5 pounds (2.0 gallons) of BONDERITE C-IC 2635 per 100 gallons (U.S.) of operating volume. Add additional water to the operating level, stir to mix the solution thoroughly and heat to the operating temperature.

The chemical concentration in the cleaning solution may be increased or reduced depending upon the type of soil to be removed and the characteristics of the equipment used.

Operation:

Time:	30 seconds to 180 seconds
Temperature:	120° to 150°F (49° to 66°C)
Application:	power spray

The time and temperature are dependent upon solution concentration and cleaning requirements. The optimum concentration, time and temperature requirements should be established for each operation and should be closely maintained.

TESTING AND CONTROL

Never pipet by mouth, use a pipet filler.

Total Acid:
Pipet a 100 ml sample into a 250-ml beaker. Add 3 drops of Indicator 3 and titrate slowly with Titrating Solution 11 until 1 drop changes the solution from clear to a pink color which lasts as least 10 seconds. The ml of Titrating Solution 11 used is the total acid value in points.

Total Acid range: 12.8 ± 1.5 points

To increase total acid, add BONDERITE C-IC 2635. With clean tap water only, 1 gallon of BONDERITE C-IC 2635 per 100 gallons of bath will increase total acid about 6.5 points.

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AFTER TREATMENT

Water Rinsing:
Water rinsing is recommended following the cleaning operation. Adequate rinsing is important. Suggested operation for each rinse is:

Time: 30 to 60 seconds
Temperature: 80° to 100°27° to 38°C)

Treating with BONDERITE M-PT POST TREATMENT (known as Polyprep Rinse):
BONDERITE M-PT POST TREATMENT (known as Polyprep Rinse) rinses are strongly recommended after initial water rinsing. The rinse aid creates water break-free rinsing for plastics. It dramatically reduces or eliminates water spotting. Our representative should be consulted on the proper selection and use of these products.

Deionized Water Rinsing:
Final rinsing with deionized water is required to minimize water spotting.
Design of the equipment is important to obtain the desired result with a minimum amount of deionized water.

Drying:
Drying to remove surface moisture is required. Oven drying or oven drying following air blow-off are acceptable techniques. Temperature of the oven should be compatible with the plastic substrate.

WASTE DISPOSAL INFORMATION

Applicable regulations covering disposal and discharge of chemicals should be consulted and followed.

Disposal information for the chemicals, in the form as supplied, is given on the Material Safety Data Sheet for each product.

The bath is acidic. Neutralization of rinse water or processing solution may be required prior to discharge to the sewer.

The processing bath and sludge which accumulates in the bath can contain ingredients other than those present in the chemical as supplied and analysis of the solution and/or sludge may be required prior to disposal.

PRECAUTIONARY INFORMATION

When handling the chemicals, in the form as supplied, the first aid and handling recommendations on the Material Safety Data Sheet for each product should be read, understood and followed.

The cleaner bath is acidic and can cause burns to skin and eyes. Do not get in eyes, on skin or on clothing. Do not take internally. Wear face shield, rubber gloves and protective clothing when handling. In case of contact, follow the recommendations on the Material Safety Data Sheet for BONDERITE C-IC 2635.

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Testing Reagents and Apparatus
(Order only those items that are not already on hand)

Code	Quantity	Item
89000-204**	2*	Beaker, 250-ml
592477	1	Buret Assembly, 25-ml Automatic
89000-254**	1	Cylinder, Graduated, 100-ml, Glass
592398	250 ml	Indicator 3 (Phenolphthalein)
41579LH***	1	Indicator Dropping Bottle
592427	4.0 L	Titrating Solution 11 (0.1N NaOH)
592426	500 ml	Buffer Solution 7
592447	1.0 liter	Buffer Solution 4

*Includes one more than actually required, to allow for possible breakage.
** VWR Part # - vwr.com or 800-932-5000
*** Consolidated Plastics Part #

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Company
Plant _____ Unit _____
Henkel Representative _____
Telephone _____ Sales Office Telephone _____

BONDERITE C-IC 2635

Tank — Tank No. _____.
Working Volume _____ gallons.
_____ gallons per inch.

Buildup (Section 6) — _____ pounds _____ ounces of BONDERITE C-IC 2635

Operation (Section 6) — Time: _____ minutes _____ seconds.
Temperature: _____ ° to _____ ° Fahrenheit.

Testing and Control (Section 7)

Total Acid: Test every _____.
100 ml sample,
drops Indicator 3,
Titrating Solution 11 to pink color.

Range: ____ to ____.
Add ____ pounds of BONDERITE C-IC 2635 for
____ points.

Chemical	lb per gallon
BONDERITE C-IC 2635	8.7

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