

BONDERITE® C-IC 1095

May 2025

PRODUCT DESCRIPTION

BONDERITE® C-IC 1095 provides the following product characteristics:

Technology	Industrial cleaner
Product type	Acidic liquid cleaner
Application	Metal pretreatment

BONDERITE® C-IC 1095 is an acid product designed for deoxidising and micro-etching of aluminium by dip or spray/cascade applications. BONDERITE® C-IC 1095 is suitable for pre-treatment of aluminium before chromate or non-chromate conversion coating or before chemical or electrochemical polishing. BONDERITE® C-IC 1095 offers the following advantages in comparison with traditional deoxidizers.

- Borate and phosphate free.
- Smooth and even surface due to removal of oxide without affecting the metal surface.
- Energy saving, as the product works at ambient temperature.
- Conversion coatings are more even and adherent.
- Absence of sludge or scales in the treatment tank.
- To work at room temperature produces a lower amount of smokes and vapors guaranteeing higher safety in the working environment.

Application

BONDERITE® C-IC 1095 is used for deoxidising or neutralising, after a suitable cleaning. In case BONDERITE® C-IC 1095 is used as activating cleaning, it is advisable to add a suitable cleaning additive and to carry out the treatment at higher temperatures.

GENERAL INFORMATION

Directions for use

Preliminary statement

Prior to use it is necessary to read the **Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Operating parameters

Average working conditions are the following:

	DIP	SPRAY/CASCADE
Concentration, % v/v	1 to 4	1 to 3
Free acid	3 to 12	3 to 9
RP	20 max	20 max
Temperature, °C	ambient to 40	ambient to 40
Treatment time, min	1 to 20	1 to 3

Bath make-up

- Fill the tank with clean water up to 3/4 of its volume.
- Activate recirculating pumps and heat the bath to working temperature.
- Add the fixed amount of BONDERITE® C-IC 1095 depending on the type of application (spray or dip).
- Bring the solution to the right volume and to the working temperature, let it recirculate for 15 to 20 min.
- Make the final controls.

Bath control

The bath is controlled through determination of Free Acid and RP value. A new standard bath at 2% should have a Free Acid value of about 6 mL.

Free Acid:

- Transfer 5 mL of solution into a 250 mL beaker and add 3-5 drops of Bromocresol Green Indicator.
- Titrate the sample with 0.1 N Sodium Hydroxide (NaOH) until the color changes from yellow to blue-green.
- The mL of 0.1 N NaOH used correspond to the Free Acid value.

RP value (reaction products):

- Pipette 5 mL of solution into a 250 beaker and add 3-5 drops of Phenolphthalein indicator.
- Stir well the sample and titrate with 0.1 N Sodium Hydroxide (NaOH) until the color changes from colorless to pink.
- Add 1 to 2 g of Sodium Fluoride (NaF).
- In case the pink color becomes more intense, this means aluminum is present and therefore keep titrate with 0.1 N Hydrochloric Acid (HCl) until the pink color disappears.
- The ml of 0.1 N HCl used correspond to the RP value of the bath.

Bath replenishment

- The bath is replenished according to the Free Acid value of the solution.
- Add 3.3 kg (3 litres) of BONDERITE® C-IC 1095 for each missing point and for each 1,000 L of bath.
- The bath of BONDERITE® C-IC 1095 can be easily monitored with automatic devices.
- The age level of the bath is monitored by determination of RP value that must be maintained under 20 mL.
- Technical Service will suggest the appropriate actions for the bath managing according to the specific application.

Cautions

In case of oil formation on the surface, it is recommended to carry out a partial overflow of the solution in order to keep it free from contamination. Tanks and all parts of the plant in contact with the concentrated product must be made or coated with anti-acid material (PVC or polythene are recommended). The part of the plant in contact with the product in solution (tanks, conveyors, etc.) can be made of stainless steel 316L. Slight differences in the product appearance do not affect its efficiency and performances.

Classification

Please refer to the corresponding **Safety Data Sheet** for details on:

- Hazards identification
- Transport information
- Regulatory information

Storage

Recommended storage temperature, °C	0 to 35
Shelf-life (in unopened original packaging), months	24

Disclaimer

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