

UNICLEAN 547

Application:

UniClean 547 is a liquid pickling cleaner concentrate, which is added to hydrochloric acid and/or sulphuric acid, for cleaning and descaling of iron and steel articles. Strongly corroded parts are cleaned and stripped from millscale in a short time. UniClean 547 has a strong cleaning power, and exhibits outstanding low foaming properties, not only in subsequent rinses, but also during waste treatment.

Description:

The system of surface-active agents makes very short pickling times possible without any attack of base-metal. Long pickling times have no harmful influence on the treated material.

Pretreatment:

Parts which are strongly soiled by oil or grease, should be degreased first in alkaline cleaner. For this purpose we recommend Uniclean 155,156,157. Other parts can directly be cleaned in UniClean 547.

Use:

Pickling time depends on the degree of corrosion and amount of oxyde to be removed, and varies from 2 - 30 minutes. After pickling, the articles should be intensively rinsed in current water. A subsequent electrolytic (anodic) cleaning is recommended.

Installation:

Tank : lined with hard rubber or acid-resistant plastic, provided with adequate heating (preferably PTFE heat exchangers).

Concentration: (depending on the amount of soil, and operating cycle):

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| a). Hydrochloric acid (s.g. 1.16) 1:1 | 3 % UniClean 547 | :operating temperature max. 40°C |
| b). Sulphuric acid (66°Be, density 1,84) 15% by vol. | 3 % UniClean 547 | :operating temperature max. 60°C |
| c). Mixture of acids consisting of:
15 % by vol. Sulphuric acid and
10 % by vol. Hydrochloric acid | 3 % Uniclean 547 | :operating temperature max. 60° C. |

Control procedure:

Chemicals needed: Caustic soda solution 1 N
Indicator methylorange

- .Pipette 5 ml pickling cleaner solution,
- .Add 100 ml water and indicator methylorange,
- .Titrate with caustic soda solution 1 N from red to yellow.

In case of sufficient acid content of the solution, 25 ml or more NaOH 1 N are used. If the titration needs less than 25 ml NaOH 1 N, there should be added 2 liter concentrated hydrochloric acid (s.g. 1.16) per 100 liter bath, for each failing ml NaOH 1 N.

Analysis of pickling cleaning solution containing 15 % by vol. Sulphuric acid:

Int the titration takes less than 27 ml Na OH 1 N, there should be added for each failing ml NaOH; 0.55 liter concentrated H₂SO₄ per 100 liter bath.