HAUG® CHEMIE

iChem solutions based on partnership

eska®phor 7186-1

/// Product information

Haug Chemie®industrial cleaner for PowerWash systems

Perfect plastic parts cleaning
in the energy-efficient low-temperature range

eska®phor 7186-1

Decrease the process temperature. Increase savings.

Anyone who industrially paints plastic parts knows how important it is to thoroughly clean and pre-treat the work pieces. It is crucial for high-quality results. Work pieces are frequently treated in PowerWash systems with an aqueous cleaning solution at process temperatures of 45-70°C – an expensive process in view of the drastic increase in energy costs. We have therefore developed a process-stable cleaning concentrate for the more economical low-temperature range (20-40°C).

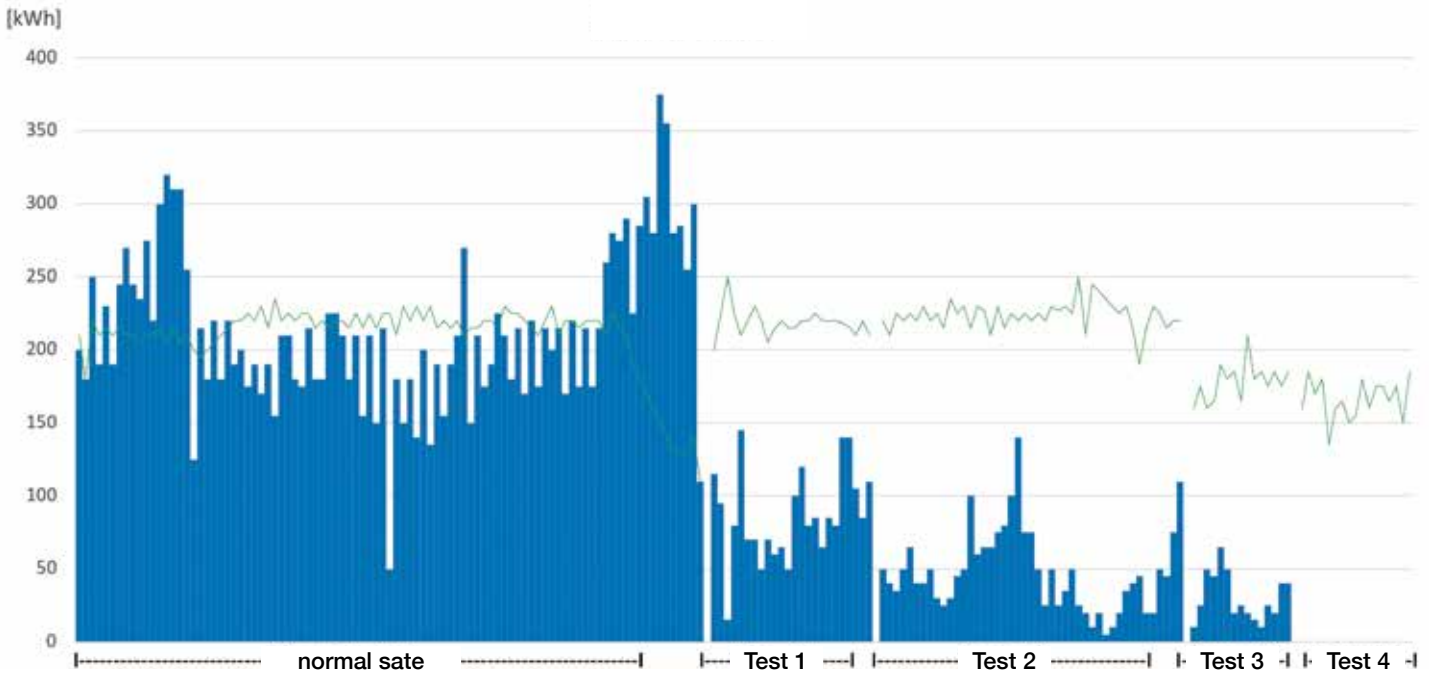
With eska®phor 7186-1, the process temperature in PowerWash systems that have an active bath and rinse with fully demineralised water can be considerably reduced.
This leads to measurably higher economic efficiency without compromising the quality of the cleaning performance. This also makes an important contribution to resource conservation.
Another plus point is that less water evaporates because of the low process temperature. This reduces the need for fresh water.

eska®phor 7186-1 from **Haug Chemie®** is suitable for all common plastics.
Despite the absence of biocides, it has high biostability.
Even at bath temperatures of < 20°C, no measurable increase in scrap rates can be detected during the manufacturing process.
Bath change intervals can be considerably increased. This enables savings in both labour and service costs associated with system cleaning.
In addition, **eska®**phor 7186-1 prevents troublesome nucleation and foaming, which reduces the use of peripheral products such as defoamers and foam suppressants (–100%) and biocides (–50%).
Finally, noxious fumes and odours are no longer a problem.

The cleaning concentrate is prepared at approx. 1% and can be easily controlled by a conductivity-controlled metering pump or subsequently concentrated by titration.

Suitable PowerWash systems should have a powerful and optimally adjusted blow-off zone when operating with **eska®**phor 7186-1 – especially if skids with parts hang on top of each other in more than three tiers or if parts have unfavourable geometry. In systems with only two rinses with fully demineralised water, a re-spray ring with fresh demineralised water must be installed.

Before switching to **eska®**phor 7186-1, a thorough technical analysis of the system and all process-typical parameters is recommended. The application engineers of **Haug Chemie®** support this process in close and cooperative dialogue with customers.



Comparison of the demand for additional heating energy using a conventional cleaner (competitor product/normal condition) and after using eska®phor 7186-1 with determination of optimal process parameters within the scope of four test series.
The green line shows the compressor waste heat that is introduced into the washing system.
The blue bars show the energy required in addition to the waste heat.

Test phase	Product	Zone 1 (Washing)	Zone 2 (Rinsing)	Zone 3 (Rinsing)	Zone 4 (Rinsing)	Demine-ralised water
Normal state	Old product	50 °C	50 °C	50°C	50°C	50°C
Test 1	Old product	45 °C	45°C	45°C	45°C	45°C
Test 2	Old product	50 °C	unheated	unheated	unheated	50°C
Test 3	**eska**®phor 7186-1	45 °C	unheated	unheated	unheated	45°C
Test 4	**eska**®phor 7186-1	40 °C	unheated	unheated	unheated	40°C

*The conductivity in the dripping water of the last sink should be < 10 µS/cm if possible.

Representative test results at a customer site

In the normal operating condition of the competitor product, an average of 200 kW of additional heating power is required in order to maintain the bath temperatures listed in the table.

Test 1: If all bath temperatures are reduced by 5°C, the average additional energy demand is still about 100 kW.
Test 2: Even with unheated sinks, the additional energy requirement for the competitor product can be reduced only to a maximum of 50 kW.
Test 3: The first series of tests using **eska**®phor 7186-1 is quite promising with an additional energy requirement of only 20 kW.
Test 4: Here, the targets and the desired bath temperature are achieved even without additional energy.
Conclusion: In order to achieve comparable results, the competitor's product requires 200 kW more energy than eska®phor 7186-1.

The quality of the painted parts is also without a doubt much better.
In particular, Tests 1 and 2 with the competitor product used so far show a slight deterioration because of increased foam generation and its carry over into the sinks.
Tests 3 and 4 using **eska**®phor 7186-1 show no carry over of foam and improved cleaning performance.

HAUG® CHEMIE

iChem solutions based on partnership

ORDER NOW AND ACHIEVE MAXIMUM BENEFIT

Modern plastic paint lines run continuously seven days a week. The same applies to the corresponding cleaning baths and demineralised water rinses. Accordingly, the continuous process temperature must be high – an operational readiness that leads to high energy costs.

The special cleaning concentrate eska®phor 7186-1 from Haug Chemie® works perfectly in the low temperature range. Without compromising quality, it effectively helps to reduce costs. If you considers "only" the lower energy consumption, the operators of PowerWash systems can achieve an average saving of 10% per year. This has a positive effect on the operating costs for the entire coating process.

Curious?
For more information, please contact your **Haug Chemie®** sales partner or contact us directly:

Advantages of eska®phor 7186-1 that you as a customer can count on:

- **Perfect cleaning properties on plastic surfaces**
- **Resource-saving because of considerable savings in energy costs – because thorough parts cleaning is possible at room temperature**
- **Good biostability, which considerably extends change intervals – thus savings in personnel and service costs for systems cleaning**
- **Reduction of waiting time – product is always ready for immediate use because the usual heating and cooling phases are eliminated**
- **Reduction of fresh water needed thanks to less evaporation**
- **Savings on additional products such as defoamers, foam suppressants, and biocides**
- **No nuisance from vapours and odours**
- **Reduction in the error rate during painting**
- **Excellent price to value ratio**

Haug Chemie®GmbH
Breite Seite 10–16
74889 Sinsheim
Germany
T: +49.(0)7261.4010
info@haugchemie.de
haugchemie.de