

## ProCare Sure I-PM process indicators - Instructions on use

### Application

ProCare Sure I-PM process indicators are used in the routine monitoring of washer-disinfectors. They flag up changes to process parameters through comparison with a predefined reference value.

**The operative mechanisms in the washer-disinfector are determined by the interaction of the following parameters:**

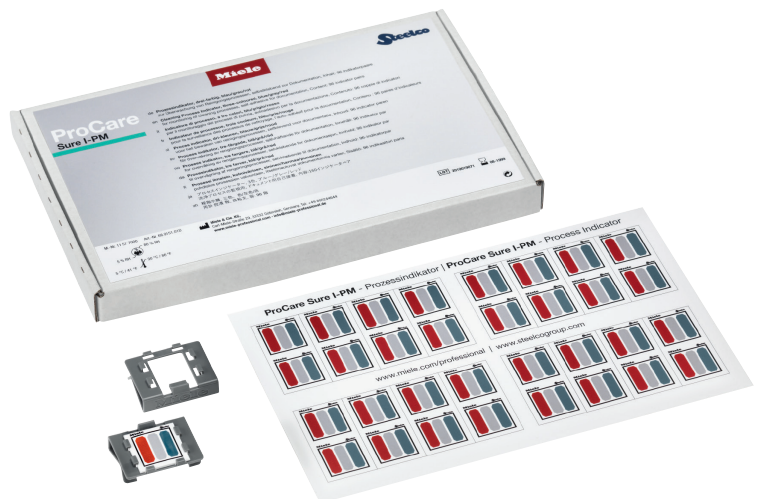
- Detergent
- Time
- Temperature
- Mechanical action
- Water quality.

**For instance, differences in cleaning intensity can result from the type of detergent used (e.g. alkaline, mildly alkaline/enzymatic) or the water quality (e.g. softened or demineralised water).**

In addition to technical parameters monitored by the washer-disinfector itself, such as dispensing and spray pressure, process indicators draw attention to any discrepancies based on a comparison with reference values defined during performance qualification, e.g. changes in water quality. Process indicators do not furnish proof of cleaning performance and are not intended as a substitute for parametric approvals by trained users. Miele recommends the use of at least two process indicators in each cycle.

### Product description

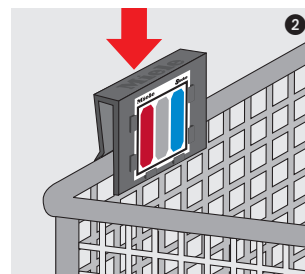
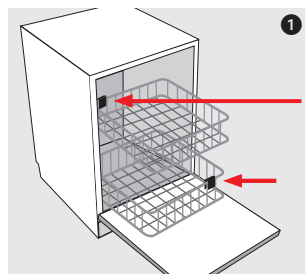
A sheet of indicators consists of 32 individual indicators. The sheet is perforated between pairs of indicators in order to facilitate the use of double indicators through folding. Three colour bars, each with different degrees of cleanability, are printed on each of the self-adhesive and temperature-resistant process indicators. The colour bars represent synthetic and non-toxic test challenges with varying degrees of adhesion. This guarantees that a broad and differentiated range of parameters are covered, e.g. water quality and the mechanical action of the spray arms.



### Use - General preparatory work

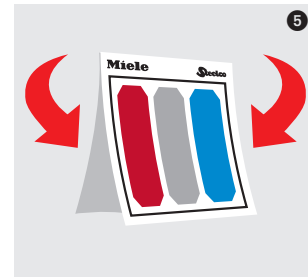
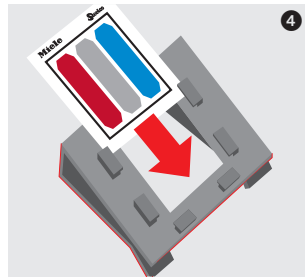
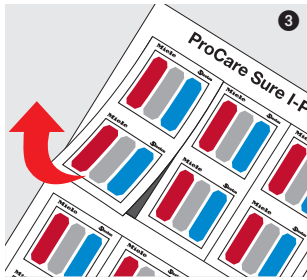
During commissioning or validation, two process indicators are included with the requisite load configuration throughout an entire programme cycle and reprocessed together with the load to provide an initial cleaning reference with respect to the given load configuration. Miele recommends the use of at least 2 process indicators per reprocessing cycle.

A documentation sheet is used to document both the reference and routine values. Documentation is facilitated by removing the adhesive backing from both indicators and applying them to the documentation sheet. The initially cleaned indicators serve as a reference for all future reprocessing cycles in which indicators are used. In order to capture values from the entire chamber, process indicators should be positioned diagonally opposite each other, one at the front and one at the rear. On models with two rack levels, position a process indicator on each of the two levels. On models with one rack level only, place one indicator at the front and one at the back in diagonally opposite corners (1). Both holders containing process indicators can be attached to load carriers or to lower and upper baskets (2). When using inserts, process indicators may also be attached directly to inserts if they would otherwise be shielded by the load. The colour bars should always face the centre of the chamber. Process indicators should always be located in the same positions during both generation of the reference and routine testing.



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The colour bars should not be contaminated with hand disinfectant or perspiration. The outer margin with the Miele & Steelco logos should be used to handle process indicators. Remove two individual process indicators from the sheet (3). Separate the two indicators along the perforations. Insert a process indicator into the holder so that the company names face upwards and the colour bars face towards the front (4). Fold along the perforated line when using double indicators. The printed sides should face outwards (5). The washer-disinfector is then loaded and the respective cycle started.



### Evaluation

At the end of the programme, remove the holder with the process indicators separately and perform a visual comparison with the reference value. The degree to which the colour bars are removed must correspond to the reference value. If this is not the case, continue by following the steps described under 'Notes on determining cause of insufficient cleaning'. A properly trained person decides about the acceptance of the result.

### Notes on determining cause of insufficient cleaning

Deviations from the reference value can have a variety of reasons:

Possible cause	Measure
Inappropriate programme selected	<ul style="list-style-type: none"> <li>• Check which cycle was recorded in the cycle records.</li> <li>• Select the required cycle with suitable programme parameters</li> </ul>
Altered load configuration	<ul style="list-style-type: none"> <li>• Compare the load configuration with references</li> <li>• Arrange load items in accordance with the reference configuration</li> <li>• Avoid positions where indicators are shielded by load items</li> </ul>
Process indicators incorrectly positioned	<ul style="list-style-type: none"> <li>• Check the positioning of the process indicators</li> <li>• Attach the holders with the process indicators in the designated places</li> </ul>
Altered detergent	<ul style="list-style-type: none"> <li>• Check that the internal or external supply tank contains the correct detergent</li> <li>• Check the use-by date of the detergent</li> <li>• Replace the detergent as applicable</li> </ul>
Spray arm blocked	<ul style="list-style-type: none"> <li>• Make sure the spray arms are able to rotate freely</li> <li>• When arranging load items, make sure that the rotation of spray arms is not impeded</li> </ul>
Filters in chamber clogged	<ul style="list-style-type: none"> <li>• Check the filters in the chamber</li> <li>• Clean the filters as appropriate</li> </ul>
Changes in water quality	<ul style="list-style-type: none"> <li>• Check the function of the water softening system</li> </ul>

### Storage and disposal

Once opened, process indicators should be stored in their packaging under the following conditions: Temperature between 5°C and 30°C and humidity between 5% RH and 80% RH, separate from other chemicals. Do not use process indicators beyond the use-by date on the packaging. Used process indicators can be disposed of together with domestic refuse.