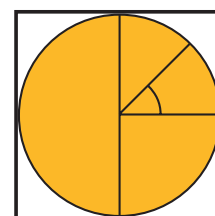


# Technical data stainless steel tubes for parabolic trough solar collectors



ENERGIE  
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## Description

Stainless steel tubes with selective coating for parabolic trough solar collectors.

## Dimensions and characteristics

Substrate	Stainless steel 1.4307 - 304L 3D, mirror polished
Full length	2'600 mm -0+ 5mm
Outer diameter	34 mm $\pm$ 0.2 mm
Material thickness	1.5 mm $\pm$ 10%
Tolerances in accordance with DIN 11850	
Straightness	< 3.0 mm/m
Surface area	0.278 m <sup>2</sup>
Weight (empty)	3.17 kg
Inner volume	1.96 l
Maximum operating pressure	see graph page 2

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## Selective coating

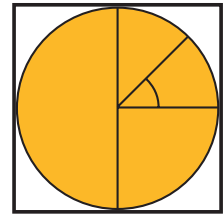
Trade name	C2-80 - AS
Optical properties	$\alpha \cong 0.95$ $\varepsilon \cong 0.15$

### Coating qualification tests

Accelerated aging test with respect to high temperature stability and resistance to high humidity involving condensation described in ISO/CD 12952.2 (MSTC Round Robin).

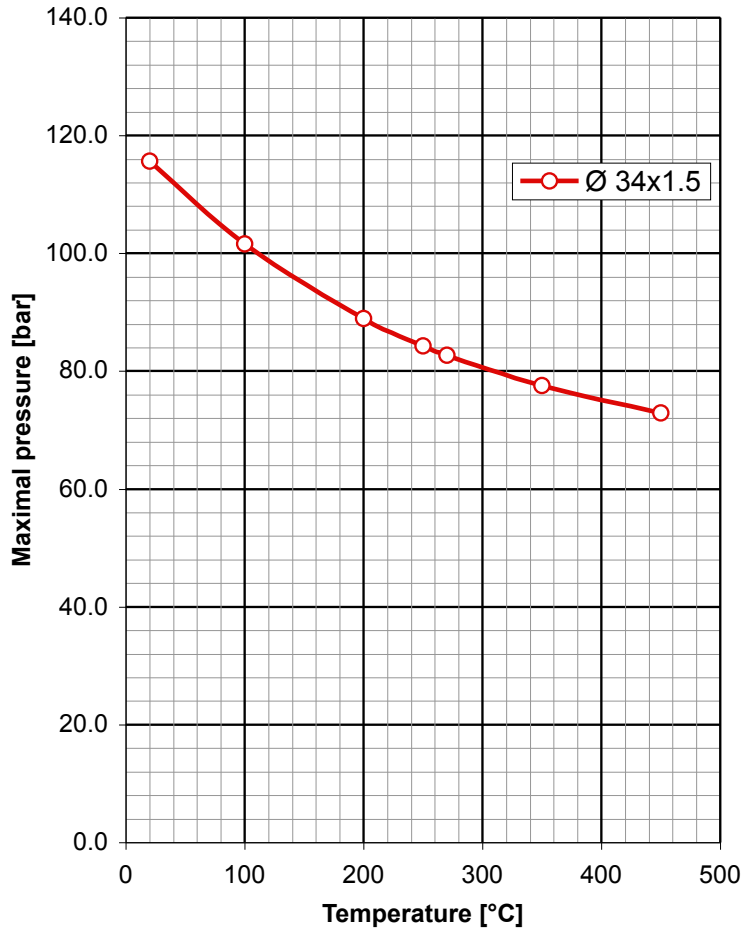
Kesternich test in accordance with EN ISO 6988

# Technical data stainless steel tubes for parabolic trough solar collectors



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**Stainless Steel Tubes 1.4301 - Calculated maximum strength to the pressure (security factor 2.5)**



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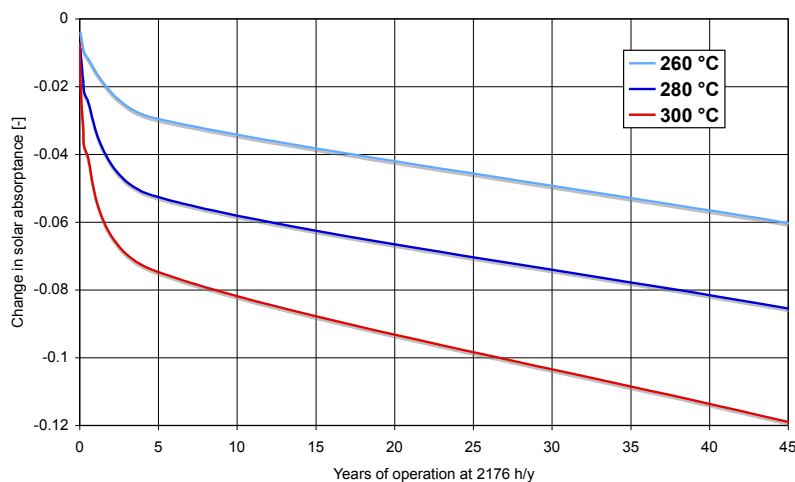
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**SIMULATION OF SELECTIVE COATING AGEING**



Source : Alterungsprüfung  
an Solarabsorbern im  
Mitteltemperaturbereich, S.  
Brunold, SPF-HSR  
BFE-Projektnummer 102349  
02 Dezember 2008