



Certificate number	7691 Rev.0	Replaces	-
Issued	09/10/2024	First edition	09/10/2024
Report number	PKC0013377	Expiry date	17/12/2028
Page	1 of 1	Contract number	PKC0013529

## Product Certificate Solar Thermal Products

**License holder:** **JODO Italia S.r.l.**  
Via 11 Settembre, 6/1 – 37019 Peschiera del Garda (VR), Italy

**Production site(s):** Via Venezia 11 – 37053 Cerea (VR), Italy

**Product** Solar thermal collector

**Model(s):** SOLDFP10T

Kiwa Cermet Italia hereby declares that the product can be considered complying to the testing requirements and is entitled to use the Solar Keymark Label, based upon the following aspects:

Laboratory testing of the solar thermal products, which are performed by an accredited laboratory in accordance to EN ISO/IEC 17025:2005 -see annex-, using the following standards:

- ISO 9806:2013  
Solar Energy – Solar Thermal Collectors – Test Methods

Specific CEN Keymark Scheme Rules for Solar Thermal Products SKN\_N0444R7.

Periodic Inspection of the Factory site(s) performed by Kiwa Cermet Italia.  
A description of the test results is given in the annex to this certificate.

*This certificate is issued in accordance with the Kiwa Cermet Italia regulations.*

*Publication of the certificate is allowed.*

*The validity of this certificate is subject to the positive result of periodic surveillance visits.*

*The validity of this certificate can be verified on request at the following e-mail address: [energy@kiwacermet.it](mailto:energy@kiwacermet.it).*

*Any total or partial reproduction of this document in any form, without Kiwa Cermet Italia express authorization, is prohibited.*

Industry Division Manager  
Maurizio Lorenzon

**Kiwa Cermet Italia S.p.A.**  
**Società con socio unico, soggetta  
all'attività di direzione e  
coordinamento di Kiwa Italia  
Holding Srl**

Via Cadriano, 23  
40057 Granarolo dell'Emilia (BO)  
Tel +39.051.459.3.111  
Fax +39.051.763.382  
E-mail: [info@kiwacermet.it](mailto:info@kiwacermet.it)  
[www.kiwa.it](http://www.kiwa.it)



PRD N° 0069PRD

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC Mutual Recognition Agreements



034





Annex to Solar Keymark Certificate		Licence Number		7691 Rev.0															
Supplementary Information		Issued		2024-10-09															
<b>Gross Thermal Yield in kWh/collector at mean fluid temperature <math>\vartheta_m</math></b>																			
Standard Locations		Athens		Davos		Stockholm		Würzburg											
Collector name	$\vartheta_m$	25°C	50°C	75°C	25°C	50°C	75°C	25°C	50°C	75°C	25°C	50°C	75°C						
SOLDFP10T		2,248	1,970	1,612	1,916	1,606	1,264	1,390	1,145	878	1,494	1,234	946						
Gross Thermal Yield per m <sup>2</sup> gross area		1,060	929	760	904	757	596	656	540	414	705	582	446						
Annual efficiency, $\eta_a$		60%	53%	43%	55%	46%	37%	56%	46%	36%	57%	47%	36%						
Fixed or tracking collector		Fixed (slope = latitude - 15°; rounded to nearest 5°)																	
Annual irradiation on collector plane		1765 kWh/m <sup>2</sup>			1630 kWh/m <sup>2</sup>			1166 kWh/m <sup>2</sup>			1244 kWh/m <sup>2</sup>								
Mean annual ambient air temperature		18.5°C			3.2°C			7.5°C			9.0°C								
Collector orientation or tracking mode		South, 25°			South, 30°			South, 45°			South, 35°								
The collector is operated at constant temperature $\vartheta_m$ (mean of in- and outlet temperatures). The calculation of the annual collector performance is performed with the official Solar Keymark spreadsheet tool Scenocalc Ver. 6.2 (13.01.2022). A detailed description of the calculations is available at <a href="http://www.estif.org/solarkeymarknew/">http://www.estif.org/solarkeymarknew/</a>																			
<b>Additional Information</b>																			
Collector heat transfer medium										Water-Glycole									
The collector is deemed to be suitable for roof integration										No									
The collector was tested successfully under the following conditions:																			
Climate class (A+, A, B or C)										B		--							
G (W/m <sup>2</sup> ) >		900		$\vartheta_a$ (°C) >		15		$H_x$ (MJ/m <sup>2</sup> ) >		540									
Maximum tested positive load										2416		Pa							
Maximum tested negative load										2014		Pa							
												m							
<b>Additional collector attribute(s)</b>																			
Using external power source(s) for normal operation					No		Active or passive measure(s) for self-protection					No							
Co-generating thermal and electrical power					No		Façade collector(s)					No							
<b>Energy Labelling Information</b>							<b>Additional Informative Technical Data</b>												
Reference Area, $A_{sol}$ (m <sup>2</sup> )							Hydraulic Designation Code			Aperture Area, $A_a$ (m <sup>2</sup> )									
SOLDFP10T							2.12			10-V-1122S-A-X-C:X			1.91						
Data required for CDR (EU) No 811/2013 - Reference Area							Data required for CDR (EU) No 812/2013 - Reference Area $A_{sol}$												
Collector efficiency ( $\eta_{col}$ )							54%							Zero-loss efficiency ( $\eta_0$ )		0.60		--	
Remark: Collector efficiency ( $\eta_{col}$ ) is defined in CDR (EU) No 811/2013 as collector efficiency of the solar collector at a temperature difference between the solar collector and the surrounding air of 40 K and a global solar irradiance of 1000 W/m <sup>2</sup> , expressed in % and rounded to the nearest integer. Deviating from the regulation $\eta_{col}$ is based on reference area ( $A_{sol}$ ) which is aperture area for values according to EN 12975-2 or gross area for ISO 9806:2017.							First-order coefficient ( $a_1$ )		0.91		W/(m <sup>2</sup> K)								
							Second-order coefficient ( $a_2$ )		0.013		W/(m <sup>2</sup> K <sup>2</sup> )								
							Incidence angle modifier IAM (50°)		1.04		--								
							Remark: The data given in this section are related to collector reference area ( $A_{sol}$ ) which is aperture area for values according to EN 12975-2 or gross area for ISO 9806. Consistent data sets for either aperture or gross area can be used in calculations like in the regulation 811 and 812 and simulation programs.												
Kiwa Cermet Italia S.p.A. • Via Cadriano, 23 • 40057 Granarolo dell'Emilia (BO) • Italy Tel: +39 0514593111 • Fax: +39 051763382 • E-Mail: <a href="mailto:info@kiwacermet.it">info@kiwacermet.it</a> • <a href="http://www.kiwa.it">www.kiwa.it</a>																			