

FP7-ENERGY-2013-1

Research and development of innovative solar thermal facades

FLUIDGLASS

Solar Thermal Glass Facades with Adjustable Transparency

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Deliverable: D1.5

Test matrix including all desired test conditions and including sample sizes of the collector and the according test HVAC system

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Dissemination level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (excluding the Commission Services)	

AUTHOR

Author	Institution	Contact (e-mail, phone)
Jean-François Robin	CEA INES	jean-francois.robin@cea.fr
Marco Olcese	CEA INES	marco.olcese@cea.fr
Christine Delord	CEA INES	christine.delord@cea.fr
Ritter Volker	UNILI	volker.ritter@uni.li
Daniel Gstöhl	UNILI	daniel.gstoehl@uni.li

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Reviewers	Validation date
Work Package Leader	Simon Felsenstein
Project Manager	Václav Smítka
Coordinator	Daniel Gstöhl
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Point of Contact	Name: Jean-François Robin and Marco Olcese Partner: CEA INES Address: Commissariat à l'énergie atomique et aux énergies alternatives Bât. Helios, 50 avenue du Lac Léman F-73375 Le Bourget-du-Lac Phone: +33 (0)4 79 79 21 15 E-mail: mailto:marco.olcese@cea.fr
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Executive Summary

The FLUIDGLASS project involves an iterative research and development process which will be implemented in two main phases. At the early stage a reiteration of tests of key design features at different development steps will give the possibility of a timely reaction if the major requirements and specifications could not be met. During the second development phase the testing will focus on overall system performance.

The testing will occur predominantly in the WPs 5 and 6. However, testing is also foreseen in the WPs 2 and 3 to support the component design and optimisation.

This document lists the number of planned tests (test matrix); it describes the purpose of the tests, the procedures, the required tools and the responsibilities. However, it does not explicitly name the WP and task in which the tests will be performed.

Due to the nature of a research project, some testing procedures are preliminary defined and will be worked out in more details at later stage. Therefore some extension and adaptation of the present document has to be expected in the course of the project.

Given the hybrid nature of FLUIDGLASS element combining a solar thermal collector with a façade glazing the specific standard for solar collector testing EN 12975 is not directly applicable and some adaptation of the test procedures is needed. However, many of the mechanical tests foreseen in EN 12975 are very close to the quality tests of the glazing elements and are partially covered in the test plan of the present document. As the project goes further and the technical solutions will be more clearly identified a revision of the present document might be needed to finalize the testing procedures also in view of possibly proposing some adjustments to the EU/international standards to cope with the specific features of the FLUIDGLASS technology.