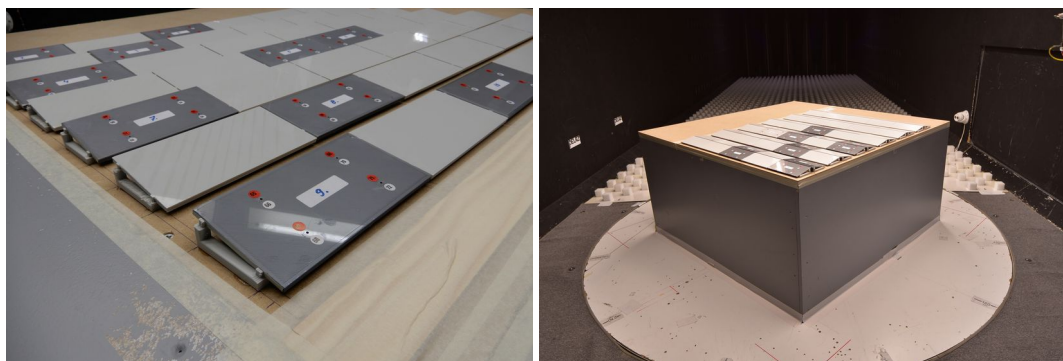


Certificate

subject: Wind tunnel studies into wind loading on PV panel supports on flat roofs
date: October 24th, 2023
reference: MvU/W 15611-3E-NO
from: ir. G.M. van Uffelen, Peutz bv
to: Wattstone GmbH

For Wattstone GmbH, wind tunnel studies have been performed by Peutz bv to determine the wind loading on their PV panel support system for flat roofs, made from concrete. The measurements have been performed in an atmospheric boundary layer wind tunnel upon using scale models for South facing and symmetrical East-West facing systems, where the pairs have been coupled. Several variants have been studied, with different roof layouts. Wattstone GmbH have performed lift tests to determine the coupling between neighbouring panels in a row conforming to appendix D.5 of NEN 7250:2021. The results of our wind tunnel studies and the lift tests have been implemented in their XLSX calculation tool. The application and interpretation of our results by Wattstone GmbH have been checked thoroughly and match the assumption and findings as laid down in report W 15611-2E-RA-001 dated October 11th, 2023.



Conformity: CUR Recommendation 103: 2005, WTG-Merkblatt September 2023
NEN 7250: 2021
NEN-EN 1990: 2019, DIN-EN 1990: 2010
NEN-EN 1991-1-4: 2019, DIN-EN 1991-1-4: 2021

Mook,



peutz bv, postbus 66, 6585 zh mook, +31 85 822 86 00, info@peutz.nl, www.peutz.nl kvk 12028033, conditions in accordance with DNR 2011, member NLIingenieurs, btw NL.004933837B01, ISO-9001:2008