

EGOLF AGREEMENT 028-2016

Subject of Agreement	Preparation of test specimens according to CEN/TS 1187, test method 2
Related test standard	CEN/TS 1187
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Problem:

During a visit by a client, there was a discussion on how the preparations of test specimens should be made. SP and the client had different approaches to this.

According to the standard, CEN/TS 1187, following items describe the preparation of test specimen:

Item 5.4.2.1 Specimens shall be rectangular with the dimensions of 400 x 1000 mm.

Item 5.4.2.3 The specimens shall as far as possible conform to the end use of the product.

Item 5.4.2.4 The product shall be attached to the substrate (e.g. gluing, nailing) in accordance with the directions given by the sponsor.

At SP the test specimens are cut across the roll with roof covering, see photo 1. Photo 2 shows where the crib will be applied during test. The weld will be in the end of specimen. The client want the test specimens to be cut along the roll and in the middle, without the edges of the roll, see photo 3.



Photo 1: Specimen cut across the roll.



Photo 2: Position of crib during test.



Photo 3: Specimen cut along the roll, without side effects from edges.

This specific product showed very different results depending on how the specimen was prepared. When cut across the roll the product failed and when cut along the product was approved.

SP Fire Research ask EGOLF to consider if there is a need to define the specimen preparation procedure?

Solution:

If the reinforcement is symmetrical, the test specimens should be cut across the roll as shown in photo 1. The reason for this is in the manufacturing process. The irregularities to the thickness during the process develop a wave form, in the direction of the roll. When the specimen is cut across the roll, if there is an irregularity in the thickness, the whole specimen represents the same thickness. If it is cut along the roll, only small section of the specimen has the irregular thickness.

If the reinforcement is asymmetrical, the worse direction should be identified and tested, or both directions should be tested.

In our interpretation of Item 5.4.2.3 the specimens shall as far as possible conform to the end use of the product. This means that the (at least) worse direction for the material should be tested. Or in the case that the customer insists of testing it (only) in the direction they want, the classification should be given only when the product is applied on the roof in the tested direction (from ridge to eave).

This should be agreed upon, and clarified in the relevant Technical Specifications and Standards. Some roof products have a weakening in the welding area, which can give a misleading test result. For these products the specimen will be cut across the roll. Two specimens will be welded and a new specimen will be cut with the welding in the middle, 500 mm from the edge, see photo 4.

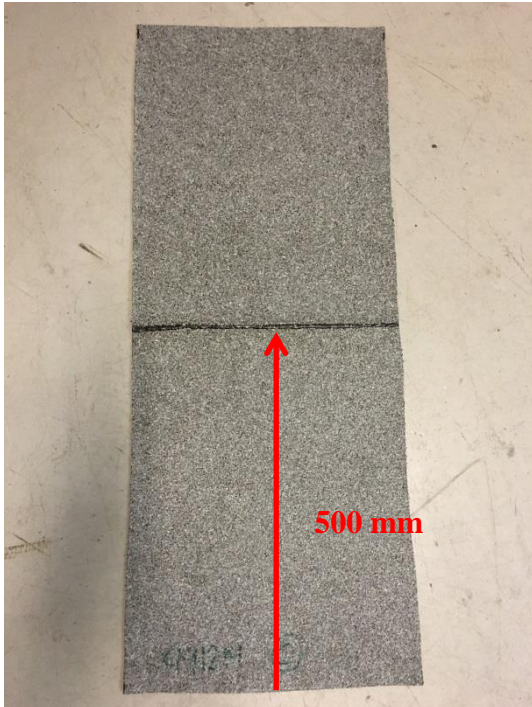


Photo 4: Specimen cut across the roll and welded 500 mm from the bottom edge.