

PRODUCT QUALITY TESTING

Testing according to EN 1555-3 AND ISO 8085-3 OF 20 MM PRESTO® ELECTROFUSION COUPLER FROM AL AZIZ PLASTICS PVT.

OBJECTIVE

The aim of the project was to perform a complete testing according to EN 1555-3 and ISO 8085-3 of the 20 mm PRESTO® electrofusion coupler from Al Aziz Plastics Pvt. Ltd, India.

The compound used for the production of this product is the PE 100 compound Borstar® HE3490-IM black produced by the Borealis Group. This compound attained a PE 100 classification in 2005 at Exova.

Exova and its sub-contractor, performed the fully accredited testing.

ADDITIONAL COMMENTS

The classification of the material has been conducted by the compound manufacturer the Borealis Group and Exova.

The testing of the 20 mm PRESTO® electrofusion coupler was conducted between 2009-02-05 and 2009-08-25 (original Exova report, P-09/102, can be received from Al-Aziz Plastics Pvt.).

The quality testing and the presented results are only valid for products produced with the PE 100 compound Borstar® HE3490-IM black from The Borealis Group.

RESULT OBTAINED

The 20 mm PRESTO® electrofusion coupler passed the requirements in EN 1555-3 and ISO 8085-3, see Table 1.

DATE OF COMPLETION

2009-09-14



Table 1 Results from the EN 1555-3/ISO 8085-3 testing

Characteristic	Test method	Sample	Requirement	Result	Pass/Fail
Hydrostatic strength	ISO 1167:2006	Coupler	20 °C, 12.4 MPa, 100 h	>100 h	Pass
Hydrostatic strength	ISO 1167:2006	Coupler	80 °C, 5.4 MPa, 165 h	>165 h	Pass
Hydrostatic strength	ISO 1167:2006	Coupler	80 °C, 5.0 MPa, 1 000 h	>1 000 h	Pass
Melt flow rate (MFR)	ISO 1133:1997	Coupler	≤20% change by processing	0.77 g/10 min	Pass
Melt flow rate (MFR)	ISO 1133:1997	Granules	-	0.68 g/10 min	Pass
Oxidation induction time (OIT)	EN 728:1997	Coupler	> 20 minutes (200 °C)	>30 min (210 °C)	Pass
Decohesive resistance	ISO 13955:1997	Coupler	≤ 33.3 % brittle failure	0 % brittle failure	Pass

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