

CLIENT: Al Aziz Plastics Pvt. Ltd, India

TESTING ACCORDING TO EN 1555-3 AND ISO 8085-3 OF 20 MM PRESTO® ELECTROFUSION COUPLER

INTRODUCTION

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 to produce 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 Element.

Element and its sub-contractor performed the fully accredited testing.

RESULT OBTAINED

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

ADDITIONAL COMMENTS

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

The testing of the 20 mm PRESTO® electrofusion coupler was conducted between 2009-02-05 and 2009-08-25 (original Element 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.

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