

Summary

Test Reference
Test Agency

K0030
MIRA Ltd, Watling Street, Nuneaton,
Warwickshire, CV10 0TU, UK
Tel: +44 (0)24 7635 5000
Mail: enquiries@mira.co.uk

Product

Manufacturer

Marshalls Mono Limited, Birkby Grange, Birkby Hall Road
Huddersfield. HD2 2YA

Designation

Bollard

Brief Description

Solid core bar of diameter 100mm with concentric tubes fitted on top, outmost diameter of which was 193.7mm. The bollard was fitted, with four locating fins, into a square steel socket cast into a steel reinforced plinth.

Drawings Supplied

5th Spetember 2012

Installation of Foundation (Date)

26th January 2011

Installation of Product (Date)

21st March 2011

Test Vehicle

Make/Type

Iveco Ford ML180E24

VIN

ZCFA1TJ0102382851

Kerb Weight (kg)

6360

GVW (kg)

18000

Impact Specification

	Target	Achieved
Mass (kg)	7500	7500
Speed (km/h)	80	81.3
Angle (deg)	90	89.8
Energy (kJ)	1852	1915
Test Result description	Vehicle halted past product and disabled. Bollard bent to 57.9°. No clear gap left.	

Penetration

Dynamic Vehicle Load-bed Penetration (m)	12.5
Static Vehicle Load-bed Penetration (m)	12.5
Dispersion of Debris (m)	21.8 Detached cab
Performance Classification – Vehicle impact Test	
Performance Classification:	V/7500(N3)/80/90:12.5/21.8

Product Type	Bollard
Test Mass (kg)	7500
Test Speed (km/h)	81.3
Vehicle Penetration (m)	12.5
Dispersion of Debris (m)	21.8
Engine Running post test	No
Vehicle Driveable Post test	No
Follow-on vehicle could pass barrier	No