DURISOL.COM



MASH TL-4 CRASH TESTED NOISE BARRIER PRODUCT GUIDE

MASH TL-4 GROUND-MOUNTED ABSORPTIVE NOISE BARRIER WITH INERTIAL IMPACT PANEL TO STABILIZE BOX TRUCKS IN COLLISIONS

MASH TL-4 IMPACT LOADS

INERTIAL IMPACT PANEL

NOISE ABSORPTION

MODULAR DESIGN

CUSTOM FINISHES

Durisol® completes MASH (Manual for Assessing Safety Hardware) crash tests for our systems so that we have the peace-of-mind knowing they are going to hold up when they are needed most and aren't going to fail in real world scenarios.

As dictated by AASHTO (the American Association of State Highway and Transportation Officials), impact speed and angle represent the worst practical conditions. Our noise barrier system meets the TL-4 criteria of 80 kips.

AASHTO MASH TL-4 CRITERIA

Criteria	AASHTO MASH			
Vehicle	'ehicle 10,206 kg (22,500 lb) Box Truck			
Speed 93 km/h (58 mph)				
Impact Angle	15°			
Test No.	4-12			

INTRODUCING: DURISOL® MASH TL-4 CRASH TESTED SYSTEM

Durisol® MASH TL-3 System is a is a modular, absorptive, ground-mounted noise barrier system just like the TL-3 system – however, it has been tested to MASH TL-4 conditions.

- 39" (1,000mm) high precast steel reinforced concrete single slope traffic barrier with proprietary connection to the noise barrier post.
- Integral inertial impact panel placed at 10' elevation to ensure protection of the wall from soft portions of the truck.
- W-10 (W250) post ground mounted post design.
- Overall crash tested height of noise barrier system installation above pavement was 17.3' (5.273m), however, designs can vary.









MANUAL FOR ACCESSING SAFETY HARDWARE (MASH) TEST LEVEL 4, TEXAS A&M TRANSPORTATION INSTITUTE PROVING GROUND, COLLEGE STATION, TX





THE DURISOL® MASH TL-4 SYSTEM STABILIZES THE VEHICLE AFTER IMPACT



MASH TL-4 SYSTEM REDUCES THE SEVERITY OF THE CRASH

WHAT IS DURISOL®

Durisol[®] is the proprietary name of a durable, lightweight and cementitious/wood composition product. It is made of chemically neutralized and mineralized organic softwood shavings which are specially processed to an acoustically engineered size and are bonded together under pressure with Portland cement.

The material is sound-absorbent, non-combustible, vermin and rot proof. Durisol is self-draining and highly resistant to weather exposure including: freeze-thaw, road de-icing chemicals and fungicides.

All Durisol noise barrier systems are engineered in-house, specifying the size for posts and the depth and diameter of footings. Standard steel posts or optional concrete posts can be accommodated.

The MASH TL-4 Noise Barrier System is available in the same range of existing Durisol standard colors and finishes. Custom colors and finishes available.

FEATURES

- MASH TL-4 Crash Tested
- Additional precast concrete Panel
- Double sided absorptive with 0.80 NRC on both highway and residential
- Modular design
- Easy installation
- Lightweight
- Non-combustible
- Non-absorptive panels are available

TYPICAL APPLICATIONS

• Roads and Highways

STANDARD COLORS



1004B NATURAL



02589 TAN



1082D TAN



09187 GREY



11988 BROWN

*This palette serves as a guide only;. Durisol's real-life texture will offer a variance in color. Color appearance also varies depending on time-of-day, light reflectance, etc.

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MASH TL-4 CRASH TEST 4-12 SUMMARY

TR No. 690902-PC	0.000 s	0.200 s	0.400 s	0.600 s
L10	5.5'	280'	58'	
18	General Information Texas A&M Transportation Test Standard Test No. MASH Test 4-12 TTI Test No. 690902-PCL10 Test Data 2020-07-15 Test Article 2020-07-15 Type — Name Congitudinal Barrier – Sour Name Trific Barrier v Installation Length 75 ft (22.86 m) Material or Key Elements Five 15 ft (4.562 m) long sc concrete barrier, 3.3 ft (1 m pavement 2.1 ft (0.648 m) base x1.5 ft (0.46 m) at top soundwall panels. Six W10 x 24.8 ft (7.56 m) steel poor	Impact Conditio SpeedAngle Location/Orient ith Soundwall Speed Exit Conditions Speed Trajectory/Hea Occupant Risk V Lateral OlV with Durisof® Longitudinal Riv X3 (W250X49) Lateral Ridedw is at 15 ft THIV	ns	Post-Impact Trajectory Stopping Distance 280 ft downstream Stopping Distance 58 ft twd field side Vehicle Stability 14 degrees Maximum Yaw Angle 14 degrees Maximum Pitch Angle 5 degrees Vehicle Snagging No Vehicle Pocketing No Test Article Deflections 0 inch (25 mm) Permanent 1.0 inch (25 mm) Height of Working Width 201 inches Vehicle Degrees (5123 mm)
2020-08-3	Soil Type and Condition (4.5/m) Soil Type and Condition Concrete footers (2 ft (610 8 ft (2438 mm) deep) in nail Type/Designation Test Vehicle 10000S Type/Designation 10000S Make and Model 2012 International 4300 SL (2420 bt (6119 kg)) Test Inertial 22,420 bt (61170 kg) Dummy No dummy Gross Static 22,420 bt (10170 kg) Note: OIV = Occupant Impact Velocity; THIV = Theoretical I	mm) diam. x Max. 0.050-s Ave ive clay soil Longitudinal. Lateral T Head Impact Velocity; ASI = Accelera		venicle Uamage VDS

Figure 5.6. Summary of Results for *MASH* Test 4-12 on Proprietary Traffic Barrier with Inertial Panel and Soundwall System

SEQUENTIAL PHOTOGRAPHS FOR TEST NO. 690902-PCL10 (REAR VIEW).



0.000 s



0.100 s



0.200 s



0.400 s



0.500 s



0.700 s



Drawings and product details are for information and/or illustrative purposes only, and may vary. Please contact your local Durisol representative for the most current product information.



Durisol* is the market leader in the noise barrier wall industry. We manufacture and supply a series of unique panel and post wall systems – including our Durisol* precast sound absorption panels and transparent ACRYLITE* Soundstop sheets, as well as narrow footprint retaining walls and fire-rated barriers. Our first noise barriers were installed in Canada in 1977 and in the US in 1986 and are all still in service today. With over 40+ million square feet of wall installed to date, Durisol* noise barriers stop the noise of industrial warehouses, utility enclosure sites and urban infrastructure of all kinds right across North America.

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