



### A Contribution To Safer Roads

BRIFEN is a flexible safety barrier system for roads that absorbs the kinetic energy of a vehicle and cushions the impact, resulting in reduced damage to the vehicle and severity of injury to its occupants.

### **How Does Brifen Wire Rope Safety Barrier Work**

BRIFEN Wire Rope Safety Barrier works on the principle of guiding the vehicle, rather than deflecting it back into the flow of traffic. The kinetic energy of the vehicle is dissipated by the wire ropes to a series of steel posts, which are designed to collapse progressively upon impact. The wire ropes are pre-tensioned and have a total effective breaking load of 80 tonnes. The vehicle is quickly and safely brought under control, minimising collision damage and reducing the severity of injuries to the occupants of the vehicle.

#### **BRIFEN** is Crash Tested To International Standards

BRIFEN has been tested to the American Standard NCHRP 350 TL-3 and the European Standard EN 1317-2 and thus complies with the Road Engineering Association of Malaysia (REAM) guideline GL 9/2006 which requires road barriers to be tested to NCHRP 350 TL-3 or the other internationally recognised standards.

#### **Accident Repair**

BRIFEN is cost-effective to repair after an accident as only the damaged posts need to be replaced. The wire ropes do not need to be re-tensioned or repaired in any way. The work to replace the posts is quick and simple, without the need for any special tools or machinery. As consequence, disruption to traffic flow is minimal whilst the repair work is being carried out.

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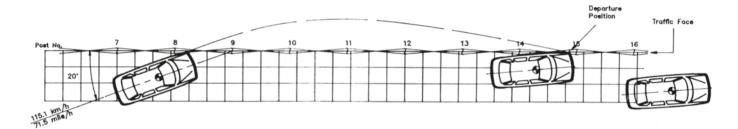
 ${\sf NCHRP\ 350\ -}\ Recommended\ Procedures\ for\ the\ Safety\ Performance\ Evaulation\ of\ Highway\ Features$ 

Vehicle Type	Vehicle Mass	Approach Speed	Approach Angle
Car	820 kg	100 km/h	20°
Truck	2,000 kg	100 km/h	25°

EN 1317-2 - Road Restraint Systems - Performance Classes, Impact Test Acceptance Criteria & Test Methods for Safety Barriers

Vehicle Type	Vehicle Mass	Approach Speed	Approach Angle
Car	900 kg	100 km/h	20°
Car	1,500 kg	110 km/h	20°

When impacted, the BRIFEN WRSB system reduces the damage to the vehicles and minimises injuries to the occupants. BRIFEN has also been proven to stop heavy vehicles.



The vehicle was contained & redirected by the wire rope safety fence.







Test Level 3





# Some BRIFEN Installations In Malaysia



BRIFEN blending in with landscape at KLIA

Median installation at Lebuhraya Pantai Timur Fasa 2, Terengganu



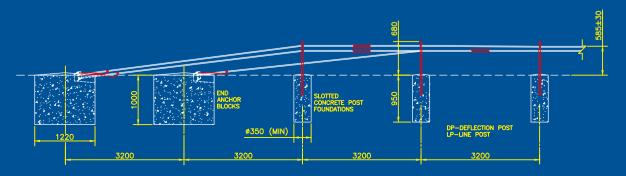
Installation at Permas Jaya, Johor Bahru, Johor

Median and verge installation at curves in Gua Musang, Kelantan



Median installation at Jalan Changlun - Kuala Perlis, Perlis & Kedah

Median installation at Middle Ring Road II, KL



## Some BRIFEN Installations In Malaysia



Sultan Abdul Halim Muadzam Shah Bridge Toll Plaza, Pulau Pinang

Duta Tropika, Kuala Lumpur



Lebuhraya Kajang - Seremban (LEKAS) Toll Plaza

Flyover at Putra Heights Interchange, ELITE Highway



Sunway Rymba, Kota Damansara, Selangor

Flyover at Jalan Universiti, Petaling Jaya



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