



**THE 590 HAS LANDED...**

3M™ MARKER SERIES 590 DEPRESSIBLE REFLECTING ROAD STUD



# SUPERIOR PERFORMANCE FROM A DEPRESSIBLE STUD

## *Proven technology - permanent application*

Microprismatic reflective sheeting has already proven itself as technology that improves road safety and helps drivers navigate roads more safely. It has been used in literally thousands of road signs and surface applied road studs. Now the same technology has been incorporated into a depressible road stud, the 3M™ Marker Series 590. It combines the superior brightness of microprismatic sheeting with all the strength and durability of a depressible road stud.

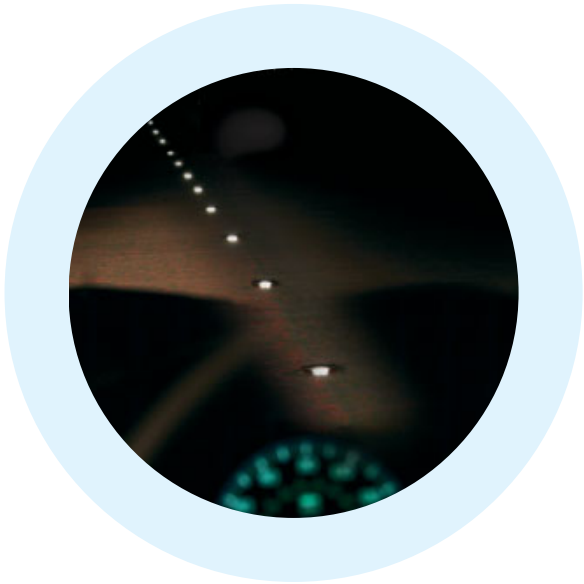
It's a combination that gives superior, long-lasting performance in every situation.

## *Significantly brighter than glass reflectors*

The secret behind the exceptional brightness of the 3M Marker Series 590 is the use of full cube microprismatic optics. The elements are made from 3M™ Diamond Grade™ Reflective Sheeting which ensures that light from a vehicle's headlights is reflected straight back to the driver. There's little scattering, and minimal diffusion. Testing shows that in actual use, 3M Marker Series 590 depressible road studs reflect 7 times more light back to the driver than the requirement for a glass beaded road stud in a straight on geometry. (see graph).

It's a significant improvement that could easily save lives, especially in conditions of poor visibility such as fog and heavy rain. But even in normal conditions, this superior reflectivity means that road layouts are better defined, easier to follow, and helps road users navigate them safely.





**The 3M Marker Series 590 is the only depressible stud that gives you**

- Improved visibility for driver safety
- More reflectivity than glass beaded studs in a straight on geometry
- Durability and long-life
- 3M's 60 years of experience in road safety

**All the strength and durability of a metal base housing**

The 3M™ Marker Series 590 has been designed to slot neatly into any of the UK approved metal bases currently in use. So it's easy to replace a worn or missing glass beaded depressible stud with a new, more reflective one. And it's not just the surrounding metal base that gives the 3M Marker Series 590 added strength. The reflective elements are covered with a self-healing protective polyurethane resin coating, which sets up a tough barrier against scratches, abrasions and spray from the road. The rubber body is specially formulated to stand up to years of exposure through the toughest of climates. It will resist weathering from ozone, ultraviolet rays, sunlight in the hottest summers, rapid changes in temperature, the sharpest of frosts and the coldest winters.

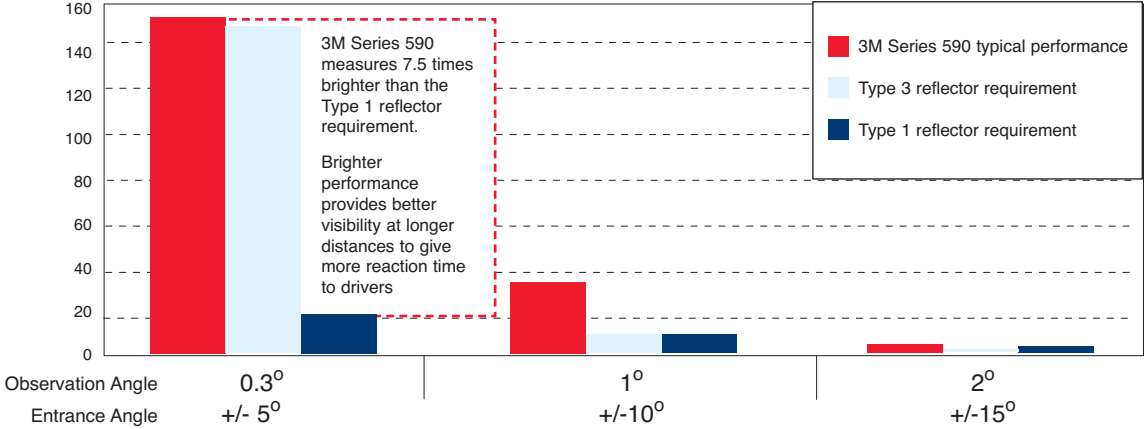
**Easy to see, easy to install**

The 3M Marker Series 590 is classified as P3B, and is the only *depressible* road stud which meets the reflectivity requirements of Type 3 road studs. Yet it's as easy to install as the old-style glass beaded studs. So there's no extra tooling or training required. It's easy for applicators to go out with the old, and in with the new.

And once the job of installation is completed, the extra strength of the rubber and the resistance of the protective resin mean the 3M Marker Series 590 will delineate the road for years to come.

It all adds up to ease of use, superior performance and a better return on your investment.

**Levels of Retroreflectivity for different types of Road Studs**



Reflectivity requirements as per EN 1463-1:1998 according to type of reflector. Type 1 reflector is glass, Type 3 is plastic with abrasion resistant layer.

# *Making Roadways Safer through Innovation*



3M™ Marker Series Depressible  
Reflecting Road Stud Classification per  
EN1463-1 1998:

Product Type: P3B  
(Permanent road stud. Plastic with abrasion resistant  
layer. Depressible road stud)

Performance Classification of  
H3, HD1, PRP1, NCR1

In 12 month road trial classification per EN1463-2:2000:  
Class SI (road presence), Class R2  
(night time visibility)

3M Marker Series 590 Depressible Reflecting  
Road Studs are available in all colour  
combinations prescribed by UK and  
Irish regulations



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