

3M Science.
Applied to Life.™



Is your mixed sign sheeting sending mixed messages?

Improve sign readability* with 3M™ Diamond Grade™ DG³ Reflective Sheeting
for backgrounds and messaging.

*THE EFFECT OF LUMINANCE AND TEXT SIZE
ON INFORMATION ACQUISITION TIME FROM
TRAFFIC SIGNS, Thomas Schnell, Ph.D., Lora
Yekhshatyan, and Ron Daiker, Paper submitted
for the 88th TRB Annual Meeting, 2009.

Signs that perform at a higher standard.

Using ASTM D4956 Type IV sheeting for backgrounds and Type XI sheeting for lettering may seem like a cost-effective way to produce signs, but are you losing more than you're gaining?



Contrast Counts

Using the same sheeting for your signs ensures the proper contrast between the background and lettering, ensuring readability regardless of the vehicle type, sign location or viewing distance.¹

Balance is Better

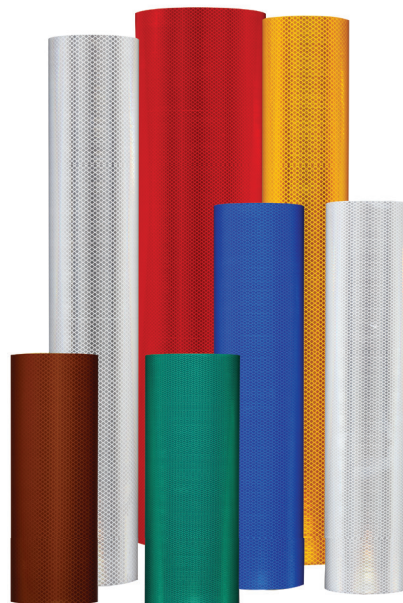
Placing bright letters on dark backgrounds can create excessive contrast and possibly lead to a reduction in legibility. Balancing luminance contrast by using the same sheeting helps reduce “disability glare,”² which causes the appearance of haloing on the letters.

The Value of Visibility³

Reducing the brightness of sign backgrounds reduces the overall visibility of the sign. Increasing the sign background sheeting spec helps ensure overall brightness, helping drivers identify signs with longer distance visibility.

Be a Process Pro

When using mixed sheeting, sign makers produce signs using a cut-out method, increasing sheeting usage and waste. This also limits the ability to use other methods like using colored transparent films and digital printing. These other processes can reduce overall sign cost as well as increase sign durability and performance.



A Winning Warranty

By mixing sheeting, the warranty of your sign may default to that of the lowest grade sheeting, if not forfeited altogether.

**Refine your signs at
[3M.com/RoadSafety](https://www.3m.com/RoadSafety).**



Transportation Safety Division
3M Center, Building 225-4N-14
St. Paul, MN 55144-1000
1.800.553.1380

1. Traffic Sign Luminance Requirements of Nighttime Drivers for Symbolic Signs, Transportation Research Board #1862, pp. 22-35, 2004. Optimal and Minimal Luminance Characteristics for Retroreflective Highway Signs, Michael Sivak and Paul L. Olson, Transportation Research Record 1027, 1985.

2. Visibility of Targets, Werner Adrian, Transportation Research Record 1247, 1989.

3. THE EFFECT OF LUMINANCE AND TEXT SIZE ON INFORMATION ACQUISITION TIME FROM TRAFFIC SIGNS, Thomas Schnell, Ph.D., Lora Yekshatyan, and Ron Daiker, Paper submitted for the 88th TRB Annual Meeting. 2009.