GUIDELINES FOR SELECTING SIGN SHEETING TO MEET MINIMUM RETROREFLECTIVITY LEVELS

Interested in more information? The guidelines can be purchased through TAC

WHAT IS RETROREFLECTIVITY?
Efficiency of a sign at returning light to a vehicle

Light out from the sign = “Efficiency” or R
Light in from the headlamps

Higher R = Brighter Sign at Night

WHY IS IT IMPORTANT?
A key factor affecting the legibility of signs at night
Others include:
- Driver Age
- Legend Type - Symbol or Text
- Level of Background Lighting

SIGN VISIBILITY UNDER DIFFERENT LEVELS OF BACKGROUND LIGHTING

SAMPLE FROM GUIDELINES:
WARNING SIGNS (WA, WB, WC)
Generally, sheeting types II or higher meet the minimum retroreflectivity requirements for warning signs in dark environments and areas where there is roadway lighting. Type IV or higher is required for environments with high background complexity and no roadway lighting.

Current Practice:
- Generally, higher numbered sheeting types are used for warning signs compared to regulatory signs.
- All but two agencies use Type III or higher as a minimum for all categories of warning signs.
- Higher sheeting types are used for WC signs than for WA and WB signs.
- Type IV is the most common sheeting used as a minimum for warning signs followed by types XI and IX.

MINIMUM R, VALUES AND SHEETING TYPES FOR WA, WB, & WC BLACK ON YELLOW SIGNS

Sheeting Types to Meet Minimum Retroreflectivity Levels (R)

<table>
<thead>
<tr>
<th>Environment</th>
<th>Minimum R</th>
<th>ASTM Sheeting Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dark Roads</td>
<td>75</td>
<td>II or higher</td>
</tr>
<tr>
<td>2. Roads with street lights</td>
<td>60</td>
<td>II or higher</td>
</tr>
<tr>
<td>3. Roads with no street light</td>
<td>270</td>
<td>IV or higher</td>
</tr>
</tbody>
</table>

Minimum retroreflectivity levels and applicable sheeting types are provided in the following table for black on yellow signs.

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- International Municipal Signal Association

MINIMUM R, VALUES AND SHEETING TYPES FOR WA, WB, & WC BLACK ON YELLOW SIGNS