

Compliance – Resource Bulletin

Reflectivity - Parking

Overview:

An important requirement of all traffic signs is their ability to be seen and understood at night. Standards for sign illumination are set by the Federal Highway Administration (FHWA) in the Manual on Uniform Traffic Control Devices (MUTCD).

Nighttime visibility is achieved in two ways: illumination with a sign mounted lighting source and reflectivity of the sign itself. Some signs incorporate both methods, but the vast majority of traffic signs are reflective only, since illumination is impractical and expensive in non-urban environments. All regulatory, warning, and guide signs must have nighttime visibility. The requirement for sign illumination cannot be satisfied by street or highway lighting. (MUTCD 2A.07)

Resources:

MUTCD Standard for Highway Signs: (Free)

https://mutcd.fhwa.dot.gov/SHSe/shs_2004_2012_sup.pdf

MUTCD Regulatory Signs: (Free)

<http://mutcd.fhwa.dot.gov/SHSe/Regulatory.pdf>

FHWA Traffic sign Retroreflectivity: (Free)

https://safety.fhwa.dot.gov/roadway_dept/night_visib/sign-retroreflectivity.cfm

FHWA Nighttime Visibility: (Free)

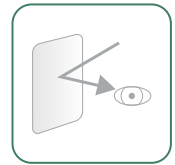
https://safety.fhwa.dot.gov/roadway_dept/night_visib/

ComplianceSigns.com Product Data Bulletin: (Free)

<https://www.compliancesigns.com/blog/product-bulletin-parking-control-signs/>

Design of Reflective Parking Signs:

- Parking signs are designated as regulatory signs by the FHWA. The MUTCD design manual catalogues them as R7 signs. With several exceptions, these signs are green or red on a white background and they must be retroreflective. (MUTCD 2B, R-7)
- Sign reflectivity relies on the light of a vehicle's headlights reaching the sign and being reflected back to the motorist. The MUTCD requires that reflective signs use retroreflective materials in their construction. Retroreflective materials are able to return the light directly to its source, eliminating loss of light due to dispersion. These materials commonly use micro size glass beads or prisms to achieve retroreflectivity. (MUTCD 2A.08)
- The FHWA sets minimum standards for the level of retroreflectivity various traffic signs must achieve as well as the product class of the sheeting material used to construct the sign. The MUTCD indicates parking signs may be constructed, at a minimum, from engineer grade (type 1) reflective sheeting. The Traffic Sign Retroreflective Sheeting Identification Guide is viewable at the FHWA Nighttime Visibility page. (MUTCD Table 2A-3)



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(Reflective Parking Signs Continued)

- ComplianceSigns.com uses 3M 3290 Engineer Grade Reflective Vinyl sheeting in fabricating its parking signs. This sheeting meets the minimum retroreflective sheeting standards set forth by the FHWA.
- Local highway agencies must have complied with the MUTCD minimum retroreflectivity standards by June 14, 2014 and must have developed a maintenance program to make certain signs under their jurisdiction maintain the minimum standard throughout their life. This program is necessary since some reflective materials used in sign construction may initially comply with the standards, only to degrade over time and lose their reflectivity level. Note: Local highway agencies may exclude parking signs from the maintenance guidelines described in the MUTCD. (MUTCD 2A.08.06A)

Visit ComplianceSigns.com to shop for related signs:

<https://www.compliancesigns.com/parking-signs.shtml>