

APPLICATION ENVIRONMENTS:

Vibration

Cable ties are widely used for the management of wire and cable around the world. Some of these applications include those that are susceptible to vibration.

Cable ties are made of nonmetallic, composite, and metallic materials.

A common question that gets asked is “How do cable ties, especially metallic cable ties, perform with respect to vibration?” Nonmetallic and composite cable ties, because of the typical holding/retention mechanism design, are viewed as being resistant to vibration effects, and therefore not tested for resistance to vibration. Metallic cable ties have been viewed, because of the typical holding/retention mechanism, as susceptible to vibration effects.

Metallic cable ties meeting the requirements of UL 62275 have been subjected to a vibration test that verifies product performance and compliance.

The vibration testing is done in accordance with IEC 60068-2-6 within UL 62275. The metallic cable ties undergo the vibration testing for 1.25 hours with frequencies ranging from 10 Hz to 150 Hz. with peak amplitude values of 0.35mm (0.7mm from peak to peak) and with maximum acceleration of 50 meters per second².

Metallic cable ties that have been evaluated to UL 62275 and meet the compliance performance criteria established are classified as Type 2, 21 or 2S, 21S cable ties.

NEMA members provide high value, consistent quality, safe and efficient use for cable ties and their associated fixing devices that meet the expectations of a wide variety of users. Visit us at <https://www.nema.org/directory/products/view/cable-ties> for current information on our industry and for the names of NEMA cable tie manufacturers.



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