



### **High Rolling and High Point Loads - Vinyl Flooring Installation**

It has come to our attention that there is confusion in the market over when it is necessary to upgrade to a high-performance, high-solids, two-component epoxy adhesive for the vinyl flooring installations.

First, it should be noted that, in general, resilient flooring manufacturers test in accordance with ASTM 970 – Standard Test Method for Static Load Limit, which measures a vinyl's ability to withstand and recover from indentations introduced into the material through the application of a static point load. The Resilient Floor Covering Institute (RFCI), commenting on this testing methodology, has warned that the criteria for static loading as specified by ASTM 970 may be insufficient, particularly in regards to the ASTM 970's deficiency in addressing dynamic loads. Citing RFCI's definition of a dynamic load, "Dynamic loads are created when a load is placed on the floor, and then moved around the floor's surface by a rolling, sliding or dragging motion." Based on this definition, loads such as these are common within the daily operation of a hospital or medical care facility. While vinyl flooring often is able to withstand static loads in accordance with ASTM 970, it may fail when those same loads become dynamic. The selection of the proper adhesive can help to mitigate the risk of static and dynamic loads from permanently deforming the vinyl flooring.

Standard water-borne vinyl adhesives, utilizing the wet set and pressure sensitive installation methods, are not designed to withstand excessive rolling and point loads, such as those imparted by hospital beds, in either their mobile (dynamic load) or stationary position (static load), and related hospital, office and institutional equipment. It is often the case that the vinyl flooring itself is permanently deformed as a result of these dynamic and static loads. In such situations, adhesive displacement and indentation would not be unexpected with the use of waterborne vinyl adhesives. For this reason, we recommend the use of a high performance, high solids, two-component, epoxy adhesive for those areas where excessive rolling and point loads will be expected. It should be noted that this is in line with what vinyl flooring manufacturers recommend in general.

Accordingly, HENRY® 452 General Purpose Epoxy Flooring Adhesive is recommended for the installation of VCT, vinyl sheet, rubber tile and linoleum in those areas where excessive rolling and point loads will be expected. HENRY® 622 VinylBond™ Premium High Strength Vinyl Flooring Adhesive, HENRY® 640 VinylLock™ Pressure Sensitive Vinyl Flooring Adhesive and HENRY® 422 Premium Vinyl-Backed Flooring Adhesive remain the recommended adhesive for the installation of vinyl flooring coverings in all other areas.

**Please note that even with the use of an epoxy adhesive, W.W. Henry cannot be held responsible for indentations issues that are a result of excessive rolling and point loads.**

Should you have any questions on this information, or if we can be of further assistance, please contact the Technical Service Department at 888-512-7339.

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