

## Point load / Dynamic load on homogeneous vinyl floor coverings.

In general we recommend a maximum point loading of 50 kg/cm<sup>2</sup> (approximately 5 N/ mm<sup>2</sup>) for our 2 mm homogeneous products, as a result of the total weight and contact area between load and floor material. This is recommendations which are shared with other suppliers of flexible vinyl floor coverings.

The reason for a limit of 50 kg/cm<sup>2</sup> is based on:

- EN 425 Determination of the effect of a castor chair (rolling load)
- EN 433 Residual indentation (static load)

Both tests are performed with a loading of approximately 50 kg/cm<sup>2</sup>. All our homogeneous products fulfill the demands in the respective standard.

We are fully aware that our homogeneous products are installed in areas where the flooring is subjected to loads above this limit, both static loads as well as dynamic loads from various types of moving equipment with different types of wheels. Normally this is without any problems as long as the subfloor can resist the load and the adhesive can resist the horizontal forces from this loading. High pressure loading on a smaller area require a sufficient quality of sub floor, leveling compound and the adhesive to secure the bonding of floor material, properties which is far beyond our control. **It is advisable to contact suppliers of these products to get appropriate recommendations.**

Wheels made of materials which can't be elastically deformed, e.g. iron or polyamide is more problematic in cases of heavy loadings due to the small contact area. Floor areas exposed for traffic with Vulkollan PU wheels or air tyres (best) could take considerable higher loadings since the contact area will be larger

The below example show the pressure loads with different types of wheels when the other conditions are the same, such as number of wheels and a total load of 1000 kg:

Iron wheels approx.	80 N/mm <sup>2</sup>
Polyamide wheels approx.	15 N/mm <sup>2</sup>
Vulkollan (PU) approx.	4 N/mm <sup>2</sup>
Solid rubber approx.	2 N/mm <sup>2</sup>
Air tires approx.	0.7 N/mm <sup>2</sup>
(1 N/mm <sup>2</sup> = 10,2 kg/cm <sup>2</sup> )	

Technical Service Dep.  
Ronneby Sweden

2013-11-01