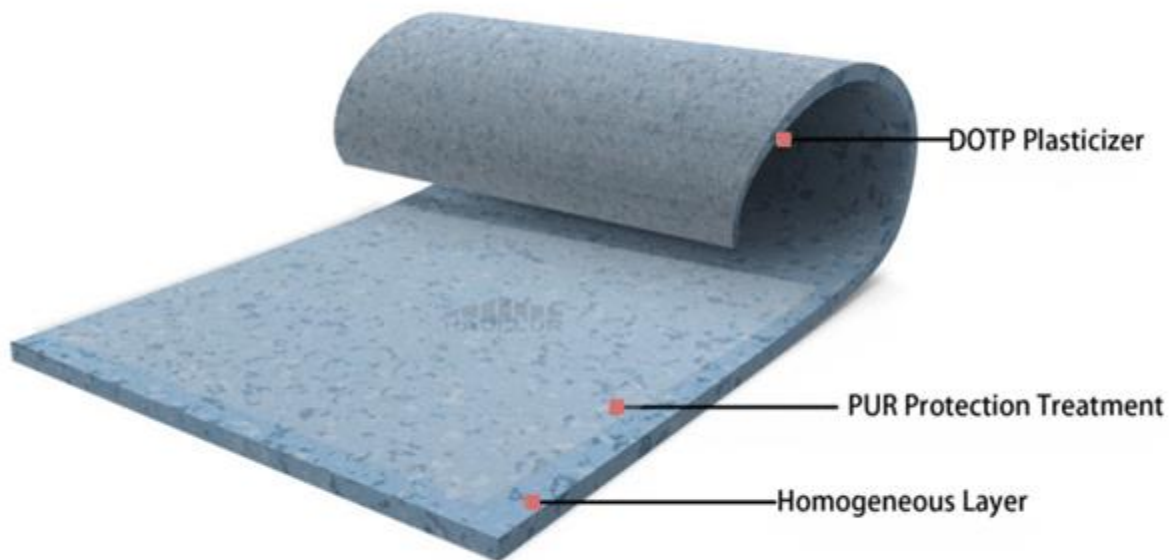


The Wear Resistance of Homogeneous Flooring

The wear resistance(abrasion resistance) index of homogeneous vinyl flooring is its wear resistance grade. It is very important for homogeneous vinyl sheet PVC floor, most buyers would require the floor to be T class or P class.



Wear resistance grade

The common wear resistance(abrasion resistance) grade we follow is European standard, divided into T-class, P-class, M-class, F-class. T-class is the highest level of wear resistance(abrasion resistance), and F-class is the lowest level. In actual production, we do not produce F class flooring.

Test method

1. The test process of homogeneous flooring wear resistance follow EN 660-2 as below:
2. Weigh the sample to the nearest $\pm 0.1\text{mg}$.
3. Grind one sample for 5000 revolutions, pause and weigh after every 1000 revolutions, and test the other two samples.
4. If the first sample is worn through in 5000 revolutions, remove and test the remaining 2 samples. 200 revolutions / cycle until 2000 revolutions or the sample is worn through.
5. Calculate the average mass loss.
6. FM, expressed in $\text{mg} / 100 \text{ revolution}$, $\text{FM} = \text{ftot} / N * 100$



Test result

Calculate the mass loss value of each sample at 100 revolutions as follows:

$F_v = F_m / \rho$, loss value F_v (mm³) / 100 revolutions,

- T class = $F_v \leq 2.0$
- P class = $2.0 \leq F_v \leq 4.0$
- M class = $4.0 \leq F_v \leq 7.5$
- F class = $7.5 \leq F_v \leq 15.0$

The higher the wear resistance (abrasion resistance) revolution is, the higher the grade is.

Effect of raw materials

The formula of homogeneous vinyl flooring are polyvinyl chloride resin (PVC), stabilizers, plasticizers, pigments and other auxiliary materials. The proportion of raw materials also determines the grade of wear resistance, especially PVC.

- T class = PVC content 80% +
- P class = PVC content 60%—75%
- M class = PVC content 40%—50%
- F class = 20% +

The higher pvc content, the better wear resistance property.

So you can judge the wear resistance (abrasion resistance) grade of the floor according to the PVC content in the homogeneous vinyl flooring.