

# Impact Ball

## Nor279



**To be used as the “Rubber Ball “ lower-frequency alternative to the Tapping Machine Excitation method in accordance with the ISO 16283-2 Appendix A.2 and the ISO 10140-5 Appendix F.2**



## Flexibility

The Impact Ball Nor279 is a product developed for use as an impact source for measurements of impact sound insulation performance - for example of floors in collective housing.

It is compliant with the requirements in

- ISO 10140-3 Measurement of impact sound insulation (ISO 10140-5 Annex F.2 Heavy/soft impact source)
- ISO 16283-2 Annex A.2 Field Measurement of impact sound insulation.

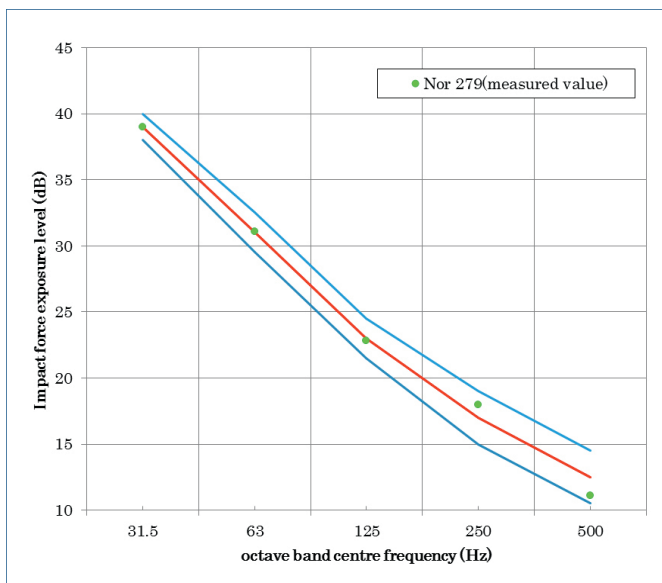
## Method

The rubber ball generates an impact force in the octave bands from 31,5 Hz to 500 Hz. Hence, it is primary useful for checking out the low frequency performance of the floor under test.

It shall be dropped in a vertical free fall from a height of 100 cm (+/- 1cm) measured from the bottom of the rubber ball to the surface of the floor. After the drop, the ball shall be captures in order to avoid multiple impacts on the floor.

Minimum four rubber ball positions shall be used for the test measurement. For lightweight floors with joints, one of the positions should be above the joints and one position should be at the centre points of the floor.

## Impact force exposure level



|  |          |          |          |          |          |
|--|----------|----------|----------|----------|----------|
| Octave band centre frequency (Hz)                                  | 31,5     | 63       | 125      | 250      | 500      |
| Impact force exposure level (dB)                                   | 39,0±1,0 | 31,0±1,5 | 23,0±1,5 | 17,0±2,0 | 12,5±2,0 |
| Impact force exposure level, measured values (dB) (representative) | 39,0     | 31,1     | 22,8     | 18,0     | 11,1     |

## Specifications

**Rubber raw material:** Silicon rubber

**Shape:** Hollow sphere, diameter 178 ±1 mm, wall thickness 32 mm

**Equivalent mass:** 2.5 ±0.1 kg

**Restitution coefficient:** 0.8 ±0.1

**Rubber hardness:** 40° ±5°

**Impact force characteristics:**

Impact force waveform (Example)

