

1.2 AIM OF THE WORK

The present work aims to study the effect of sample surface area on the sound absorption coefficient of some absorbing materials (foam, polyurethane, polyisoprene and carpet) at random sound incidence. The results using different areas of each material will be compared with reference standard area according to ISO 354, in order to make corrections for the sound absorption coefficient comparing with the reference standard area. The effect of temperature and relative humidity of the field during measurements will be taken into consideration.

Plan of the work

1. Experimental study of sound absorption on some materials.
2. The study will be carried out on the same materials at random incidence in reverberation room according to specified ISO and for unspecified small surface area.
3. Determination of a correction factor for the sound absorption coefficient for different surface area of the tested material from that for the reference standard area.