

LIGHTWEIGHT REFERENCE FLOOR: ACOUSTIC INSULATION TO AIRCRAFT NOISE

Client: AMC

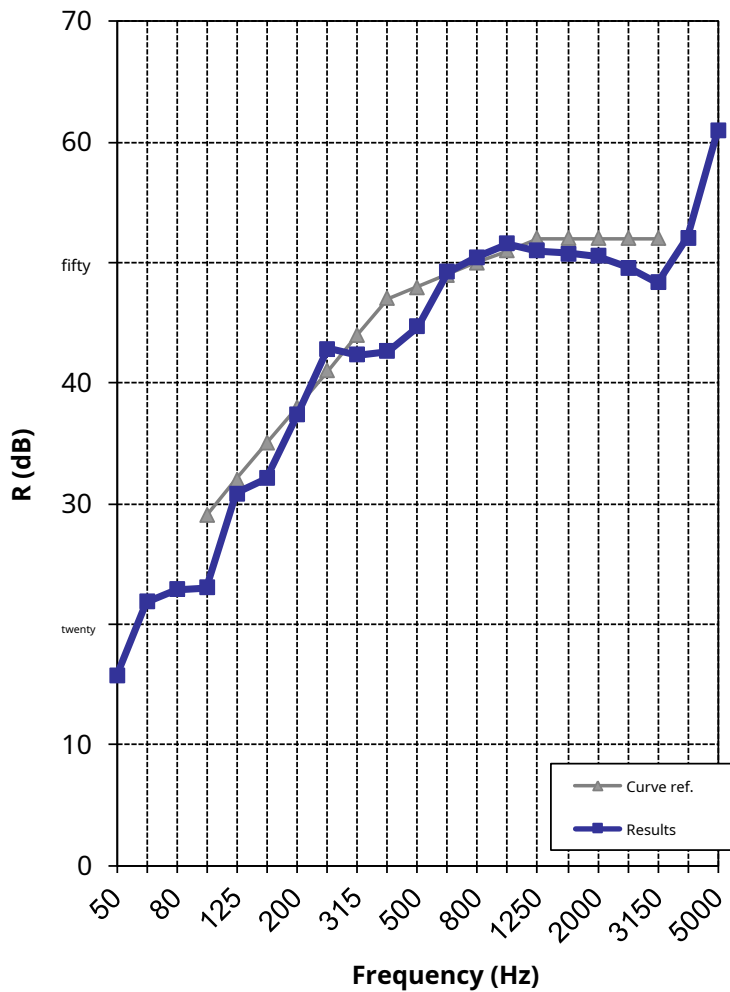
Sample identification:

Reference light slab composed of: 22 mm chipboard board + 12x18 cm section wooden beams + 24 mm thick wooden battens with mineral wool (100 mm) in the gaps between beams + laminated gypsum board of 12.5mm thick

Total thickness:

Surface mass:

| <i>Freq.</i> <i>F</i> <i>Hz</i> | <i>R</i> <i>dB</i> |
|---------------------------------------|-----------------------|
| <i>fifty</i> | 15.7 |
| 63 | 21.8 |
| 80 | 22.9 |
| 100 | 23.0 |
| 125 | 30.9 |
| 160 | 32.1 |
| 200 | 37.4 |
| 250 | 42.8 |
| 315 | 42.3 |
| 400 | 42.6 |
| 500 | 44.7 |
| 630 | 49.2 |
| 800 | 50.5 |
| 1000 | 51.6 |
| 1250 | 51.0 |
| 1600 | 50.7 |
| 2000 | 50.6 |
| 2500 | 49.6 |
| 3150 | 48.4 |
| 4000 | 52.1 |
| 5000 | 60.9 |



Global insulation calculated according to ISO 717-1: 2013:

$R_w (C; C_{tr}; C_{50-5000}; C_{tr}, 50-5000) = 48 (-2; -7; -2; -12)$ dB Global

isolation in dBA between 50 - 5000Hz:

$R (A) = 45.6$ dBA