DIN 4109-5:2020-08 (E)

Sound insulation in buildings - Part 5: Increased requirements

Contents

Page

Foreword 4

Introduction 6

1 Scope 7

2 Normative references 8

3 Terms and definitions 8

4 Characteristic quantities for the requirements 9

5 Airborne and impact sound insulation in buildings with living and working areas 9
5.1 Increased requirements for sound insulation in multi-family dwellings and in mixed-use buildings 9
5.2 Increased requirements between single-family terraced houses and between semi-detached houses 11

6 Airborne and impact sound insulation in non-residential buildings 13
6.1 Hotels and lodging establishments 13
6.2 Hospitals and sanatoriums 14

7 Airborne sound insulation in external building components 16

8 Increased sound insulation against noise from building services equipment 16

9 Sound insulation against noise from HVAC systems in personal living areas 17

10 Verification by calculation and testing of acoustics in buildings 18
10.1 General 18
10.2 Verification by calculation 18
10.3 Testing of acoustics in buildings 18

Annex A (informative) Description of perceptibility 19

Bibliography 21

Tables Table 1 -- Increased requirements for sound insulation in multi-family dwellings and in mixed- use buildings 9

Table 2 -- Increased requirements for airborne sound insulation and impact sound insulation between single-family terraced houses and between semi-detached houses 12

Table 3 -- Increased requirements for airborne sound insulation and impact sound insulation in hotels and lodging establishments 13

Table 4 -- Increased requirements for airborne sound insulation and impact sound insulation in hospitals and sanatoriums 14

Table 5 -- Increased requirements for maximum permissible A-weighted normalized sound pressure levels in other rooms requiring protection, generated by building services equipment 17

Table 6 -- Maximum permissible A-weighted normalized sound pressure levels in rooms requiring protection in personal dwellings, generated by HVAC systems in personal living areas ... 18

Table A.1 -- Description of the subjective perceptibility of usual noises with sound insulation multi-family dwellings 20