

DIN EN ISO 8253-3:2012-08 (E)

Acoustics - Audiometric test methods - Part 3: Speech audiometry (ISO 8253-3:2012);
German version EN ISO 8253-3:2012

Contents	Page
Foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Definitions	6
4 Requirements for recording of speech material	10
4.1 General requirements	10
4.2 Reference recording	10
4.3 Recording environment	11
4.4 Frequency response of recording equipment	11
4.5 Interval between successive test items	11
4.6 Levels	11
4.7 Signal-to-noise ratio	11
4.8 Phonemical balance across test lists	11
4.9 Perceptual balance across test lists	12
5 Validation of speech material recordings	12
5.1 General	12
5.2 Determination of reference speech recognition curve	12
5.3 Determination of perceptual equivalence of test lists	13
5.4 Determination of repeatability of results (average test-retest reliability)	13
5.5 Documentation	14
6 Requirements for speech audiometry	14
7 Ambient sound pressure levels in test room for speech audiometry	14
8 Sound field speech audiometry	14
9 Preparation and instruction of test subject	15
9.1 General	15
9.2 Preparation of test subject	15
9.3 Instruction of test subject	15
10 Subject's response mode	15
11 Determination of speech detection threshold level	16
12 Determination of speech recognition threshold level	16
12.1 General	16
12.2 Descending procedure using 5 dB steps	17
12.3 Alternative descending procedure	17
12.4 Adaptive procedure using fixed step sizes	18
12.5 Other adaptive procedure	19
13 Determination of speech recognition scores	19

14	Contralateral masking	19
15	Speech audiometry with competing sound	20
15.1	Type of competing sound	20
15.2	Presentation of competing sound	20
15.3	Speech and competing sound levels	20
15.4	Test procedure	20
16	Format of speech audiogram	22
17	Measurement uncertainty	22
18	Maintenance and calibration of equipment	23
18.1	General	23
18.2	Intervals between tests	23
18.3	Stage A: Routine checking and listening tests	23
18.4	Stage B: Periodic electroacoustic tests	24
18.5	Stage C: Basic calibration tests	24
Annex A (informative) Example of speech materials		25
Annex B (informative) Examples of competing sound conditions		26
Annex C (informative) Typical results		27
Annex D (informative) Optimisation of perceptual balance of test lists		29
Annex E (informative) Measurement uncertainty		30
Bibliography		35