

# DIN EN 17348:2022-09 (E)

## Requirements for design and testing of vacuum cleaners for use in potentially explosive atmospheres

---

<b>Contents</b>		<b>Page</b>
European foreword .....		4
Introduction .....		5
1	Scope .....	6
2	Normative references .....	7
3	Terms and definitions .....	9
4	Safety requirements and protective measures .....	14
4.1	General .....	14
4.2	Risk assessment .....	14
4.3	Assignment of categories .....	15
4.4	Assignment of types and applicable requirements .....	15
5	Safety requirements regarding ignition hazards .....	16
5.1	Requirements applicable to all types of vacuum cleaners .....	16
5.2	Additional requirements applicable to electrical parts of vacuum cleaners .....	24
5.3	Additional requirements applicable to dry type dust collectors .....	25
5.4	Additional requirements applicable to wet type dust collectors .....	26
5.5	Additional requirements applicable to liquid collectors .....	28
6	Safety requirements regarding further significant hazards .....	29
6.1	Requirements applicable to all types of vacuum cleaners .....	29
6.2	Additional requirements applicable to the main filter for dry type dust collectors .....	37
6.3	Additional requirements applicable to liquid collectors .....	38
6.4	Additional requirements applicable to non-electrical vacuum cleaners .....	38
6.5	Additional requirements applicable to portable hand-held vacuum cleaners .....	39
7	Information for use .....	39
7.1	General .....	39
7.2	Operation and maintenance manual .....	39
7.3	Marking .....	47
7.4	Warning labels .....	49
7.5	Signal and warning devices .....	49
7.6	Examples of marking and warning labels .....	50
Annex A (informative) Methodological approach .....		52
Annex B (informative) Location of the power system in vacuum cleaners .....		53
Annex C (informative) Examples of vacuum cleaner types .....		57
Annex D (informative) Example of an Ignition Hazards Assessment .....		61
Annex E (informative) List of significant hazards .....		77
Annex F (informative) Seal and filtration efficiency test .....		80
Annex G (normative) Localization of measured points for earthing and bonding tests .....		83

<b>Annex H (informative) Noise test code .....</b>	<b>84</b>
<b>Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2014/34/EU aimed to be covered .....</b>	<b>91</b>
<b>Annex ZB (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered .....</b>	<b>94</b>
<b>Bibliography .....</b>	<b>97</b>