

# DIN EN 14034-1:2011-04 (E)

Determination of explosion characteristics of dust clouds - Part 1: Determination of the maximum explosion pressure  $p_{max}$  of dust clouds (includes Amendment A1:2011)

---

<b>Contents</b>		<b>Page</b>
Foreword .....		3
1	Scope .....	5
2	Normative references .....	5
3	Terms and definitions .....	5
4	Test apparatus .....	6
4.1	General .....	6
4.2	Explosion vessel .....	6
4.3	Dust dispersion system (dust container, fast acting valve, connecting tube, dust disperser) .....	8
4.4	Ignition source .....	11
4.5	Control unit .....	11
4.6	Pressure measuring system .....	11
5	Dust sample .....	11
6	Test procedure .....	12
7	Calibration and verification .....	14
7.1	Calibration .....	14
7.2	Verification .....	15
8	Safety precautions / instructions for use .....	15
9	Alternative test equipment / procedures .....	16
10	Test report .....	16
Annex A (normative) Electro pneumatic valve .....		17
Annex B (normative) Dust disperser with 5 mm holes .....		19
Annex C (normative) 20 l sphere .....		23
C.1	General .....	23
C.2	Test apparatus .....	23
C.3	Test conditions .....	23
C.4	Test procedure .....	24
C.5	Calculation and correction of $p_{max}$ .....	25
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 94/9/EC .....		26
Bibliography .....		27
Introduction .....		4