

DIN EN 12012-1:2018-11 (E)

Plastics and rubber machines - Size reduction machines - Part 1: Safety requirements for blade granulators and shredders

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	8
4	Safety requirements and/or protective/risk reduction measures	11
4.1	General	11
4.2	Mechanical hazards	11
4.2.1	Access through openings of the cutting chamber	11
4.2.2	Feeding device	12
4.2.3	Discharge area	13
4.3	Hazards generated by noise	13
4.3.1	Noise reduction at source by design	13
4.3.2	Main sources of noise and noise reduction measures	13
4.3.3	Measurement and declaration of noise emissions values	14
4.4	Hazards resulting from loss of machine stability	14
4.5	Hazards due to electrical energy	14
4.6	Emergency stop	14
4.7	Hazards due to neglecting ergonomic principles	14
5	Verification of the safety requirements and/or protective/risk reduction measures	15
6	Information for use	15
6.1	General	15
6.2	Instruction handbook	15
6.3	Marking	17
6.4	Warning signs	17
Annex A (informative) List of significant hazards		18
Annex B (normative) Noise test code		19
B.1	General	19
B.2	Determination of the A-weighted emission sound pressure level at the workstation	19
B.3	Determination of the A-weighted sound power level	20
B.4	Mounting and operating conditions	21
B.5	Information to be recorded and reported	21
B.6	Declaration and verification of noise emission values	22
Annex C (informative) Example of protective flaps		25
C.1	General	25
C.2	Protective flap - Rigid type	25
C.3	Protective flap - Flexible type	25
DIN EN 12012-1:2018-11 EN 12012-1:2018 (E) Annex ZA (informative) Relationship between this European Standard and the essential requirements of EU Directive 2006/42/EC aimed to be covered		26
Bibliography		27