

DIN EN 45560:2025-04 (E)

Method to achieve circular designs of products

Contents		Page
European foreword		3
Introduction		4
1	Scope	6
2	Normative references	6
3	Terms, definitions and abbreviated terms	6
3.1	Terms and definitions relating to circular product design	6
3.2	Terms and definitions relating to environment	8
3.3	Terms and definitions relating to product and resource	9
3.4	Terms and definitions relating to recycling	10
3.5	Terms and definitions relating to durability	11
3.6	Terms and definitions relating to lifetime extension	12
3.7	Abbreviated terms	13
4	Principles and concepts in support of circular product design	14
4.1	Circular product design core principles	14
4.2	Design principles for narrowing, slowing, and closing material flows	14
4.3	Material value hierarchy	16
4.4	EN 4555X-4556X series of standards and the material value hierarchy	18
5	Transition by an organization towards circularity	20
5.1	Circular economy as part of the vision, mission, and strategy	20
5.2	Circular goals of the organization	20
5.3	Measuring the organization's transition towards circularity	21
6	Circular product design requirements and guidance	22
6.1	Circular product design implementation process	22
6.2	Circular targets of the organization	23
6.3	Circular product attributes	27
6.4	Building a circular product design matrix	29
6.5	Trade-offs considerations in circular product design	32
6.6	Circular product design requirements	35
7	Communication	45
7.1	Communication of the circular goals of the organization	45
7.2	User information and guidance on circular aspects of the product	45
Annex A (informative) Background information		46
A.1	Considerations of sustainable development goals	46
A.2	Circular product design extends environmentally conscious design	46
Annex B (informative) Strategies contributing to slowing, narrowing and closing material flows		48
B.1	Examples of strategies for narrowing material flows	48
B.2	Examples of strategies for slowing material flows	49
B.3	Examples of strategies for closing material flows	51
Annex C (informative) Circular product attributes explained		53

C.1	Circular product attribute groups, rationale and objectives	53
	Bibliography	56