

DIN ISO 18948:2021-04 (E)

Imaging materials - Photo books - Test methods for permanence and durability (ISO 18948:2 018)

Contents		Page
National foreword		4
National Annex NA (informative) Bibliography		5
Foreword		6
Introduction		7
1	Scope	8
2	Normative references	8
3	Terms and definitions	9
4	Image permanence tests for covers and pages	11
4.1	General	11
4.2	Sample preparation	11
4.3	Thermal stability during long-term dark storage	12
4.3.1	General	12
4.3.2	Procedures	12
4.3.3	Reporting	12
4.4	Light stability	13
4.4.1	General	13
4.4.2	Covers	13
4.4.3	s	13
4.4.4	Reporting	13
4.5	Ozone stability	13
4.5.1	General	13
4.5.2	Covers	13
4.5.3	s	14
4.5.4	Reporting	14
4.6	Humidity stability	14
4.6.1	General	14
4.6.2	Covers and pages	14
4.6.3	Reporting	14
5	Book integrity tests	15
5.1	General	15
5.2	Ageing conditions	15
5.3	pull test	15
5.3.1	General	15
5.3.2	Test procedure	16
5.3.3	Alternate test procedure	16
5.3.4	Calculation of the binding strength	17
5.4	Peeling and lamination durability	17
5.4.1	General	17
5.4.2	Resistance to delamination	18
5.4.3	Assessment of age related lamination and binding strength	18
5.4.4	Peeling resistance and lamination bond strength for protective laminate	18
5.4.5	Internal bond strength for glued single side sheets	18
5.4.6	Test sample preparation, results assessment and reporting	19

5.5	Book block attachment to the cover (heat durability)	19
5.5.1	General	19
5.5.2	Book binding strength (heat durability)	19
5.5.3	Opening and closing durability	19
6	Book blocking	20
6.1	General	20
6.2	Test conditions	20
6.3	Test target design	21
6.4	Conditioning of test specimen	22
6.5	Test methods	22
6.5.1	General	22
6.5.2	Equipment and calibration	23
6.5.3	Test environment control	23
6.5.4	Long term storage (hot/dry) test	24
6.5.5	Long term storage (warm/humid) test	24
6.5.6	Short term transport test	24
6.6	Evaluation	24
6.6.1	General considerations	24
6.6.2	Reporting	24
6.6.3	Additional evaluations	25
7	Deformation caused by humidity	25
7.1	deformation of a photo book (waviness)	25
7.1.1	General	25
7.1.2	Procedure	25
7.1.3	Reporting	26
7.2	Cover deformation of a photo book (warp)	27
7.2.1	General	27
7.2.2	Procedure	27
7.2.3	Reporting	28
	Annex A (informative) Guidelines for data interpretation	29
	Annex B (informative) Abrasion	31
	Annex C (informative) Extreme photo book tests	33
	Annex D (informative) Sandwich thermal test method	36
	Annex E (normative) Lamination and delamination testing procedures	38
	Bibliography	41