

CREATOR: TECHNICAL PROPERTIES

PROPERTY	RELATED REGULATION	INFLUENCE ON PRODUCT QUALITY
CHARACTERISTIC		
Substance	ISO 536	Intrinsic property related to the customer's requirements. For paper in reels, substances somewhat below the nominal values are established in order to increase productivity. Some papers (coated, bulk, thermal paper) prioritize thickness over substance with the aim of meeting specific objectives concerning the final measurements of the spine or small reels.
Thickness/caliper	ISO 534	Intrinsic property related to the customer's requirements. For paper in reels, substances somewhat below the nominal values are established in order to increase productivity. Some papers (coated, bulk, thermal paper) prioritize thickness over substance with the aim of meeting specific objectives concerning the final measurements of the spine or small reels.
Whiteness-D65/C2	ISO 11475/ISO 11476	Property related to the appearance of the product. Greater whiteness tends to be associated with higher quality. As visual perception of this property depends on the kind of illuminant used, 2 different conditions are typically used for measuring, exterior light (D65 sunlight) and interior light (C2 fluorescent).
Opacity	ISO 2471	Property of the sheet which does not permit transparency of the print made on the back. It is particularly important in lower substances. Some markets (USA) prioritize this property over whiteness.
Gloss-75°	Tappi T480	Property related to the appearance of the product. The reflective character of the surface improves the gloss quality of the print. There are 3 measurement systems by light reflection in three distinct angles (coated-75°, cast-coated-20° and metallized-60°). In each case the system applied is the most accurate way of quantifying visual perception.
RUNNABILITY		
Absolute/relative humidity	ISO 287/Tappi T502	Absolute humidity is a measure of the water content of the paper (manufacturing control). Relative humidity denotes the moisture content of the paper balanced with environmental conditions. Moisture content in balance with the environmental conditions of operation areas allows for a print free of movements and disruptions and avoids problems of curl during operation. Paper subjected to operation processes at high temperatures (rotary, laser printing, silk screen printing, etc.) requires lower humidity in order to avoid curling or blistering.
PRINTABILITY		
Smoothness/Roughness	ISO 5627/ISO 8791-4	Influences the quality of the printed product. Surface structure and roughness determine the amount of ink needed for a good print, absorption of the ink, and the reflective character of the print, having an effect on the ink gloss. In semi-matt coated paper (according to its roughness range) it has a particular influence on the printed ink's rub resistance and consequently on the occurrence of offsetting problems. The measuring system depends on the smoothness range: - Bendtsen smoothness for rougher paper (uncoated, matt coated, carbonless, thermal) - Bekk smoothness for smoother paper (gloss and semi-matt coated, cast-coated, metallized) - Parker roughness: measures the state of the surface in conditions of pressure when printing, as smoothness in these conditions varies as a function of the greater or lesser compressibility of the paper.

RELATED REGULATION: Those used as a reference for developing the test method

TEST METHOD: Documented analytic procedure for measuring or quantifying the property

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