



<b>Across Direction</b>	Direction of the side of the blanket as intended to be applied perpendicular to the direction of rotation <sup>(1)</sup> .
<b>Around-the-cylinder Direction</b>	Direction of the side of the blanket as intended to be applied in the direction of the rotation <sup>(1)</sup> .
<b>Blanket Dimensions</b>	Defined by <a href="#">Length</a> , <a href="#">Width</a> and <a href="#">Thickness</a> .
<b>Compressibility</b>	Extent to which a material is compressed in test for compression and recovery <sup>(2)</sup> . Defined as <a href="#">Deflection/ Indentation</a> on the 5 <sup>th</sup> cycle of a <a href="#">Compression Test</a> .
<b>Compressive Loss</b>	<a href="#">Deflection/ Indentation</a> decrease from the 1 <sup>st</sup> to the 5 <sup>th</sup> compression of a <a href="#">Compression Test</a> .
<b>Damping Capacity</b>	Capability to dissipate energy in motion of any type <sup>(2)</sup> . <a href="#">Hysteresis Energy/ Elastic Energy</a> ratio describing the balance between the transformation of compressive energy into Heat and Elastic Deformation Energy, respectively.
<b>Deflection</b>	Thickness reduction of a sample (full area) when compressed up to a specific pressure, following a <a href="#">Compression Test</a> .
<b>Deflection 2k</b>	Thickness reduction of a sample (full area) when compressed up to 2.060 kPa, following a <a href="#">Compression Test</a> .
<b>Deflection k</b>	Thickness reduction of a sample (full area) when compressed up to 1.060 kPa, following a <a href="#">Compression Test</a> .
<b>Effective Length</b> (Gauge Length <sup>(2)</sup> )	The distance along the sample dimension upon which <a href="#">extension</a> calculations are made <sup>(2)</sup> . Distance between the grips in an <a href="#">Elongation &amp; Tensile Test</a> .
<b>Elastic Energy</b>	Elastic deformation energy at the last compression stage of a <a href="#">Compression Test</a> <sup>(2)</sup> .
<b>Elongation</b>	<a href="#">Length</a> increase of a blanket under longitudinal <a href="#">stress</a> , expressed in percent of the initial length at 500 N per 50 mm <a href="#">width</a> <sup>(1)</sup> or in mm. <i>This result may be linked to the blanket behaviour during its dressing operation on the blanket cylinder.</i>
<b>Extension</b>	An instantaneous Grips/ Platen distance value during a mechanical test.
<b>Gauge Loss</b>	Blanket <a href="#">thickness</a> reduction from the 1 <sup>st</sup> to the 5 <sup>th</sup> compression of a <a href="#">Compression Test</a> , measured at the same pressure.
<b>Gauge Variation/ Uncertainty</b>	Thickness values difference, measured at a given pressure, on the 4 <sup>th</sup> decompression and on the 5 <sup>th</sup> compression, following a <a href="#">Compression Test</a> .
<b>Hardness</b>	Measure of a material's resistance to localized plastic deformation <sup>(2)</sup> .
<b>Head Speed</b>	Grips/ Platen relative movement velocity.
<b>Hysteresis (loop)</b>	The closed curve representing the successive <a href="#">stress-strain</a> status of the material during a cyclic deformation <sup>(2)</sup> , following a <a href="#">Compression Test</a> . Refer to the Load = f( <a href="#">Machine Extension</a> ) Graph - 4 <sup>th</sup> decompression and 5 <sup>th</sup> compression.
<b>Hysteresis Energy</b> (Elastic Hysteresis <sup>(2)</sup> )	Difference between <a href="#">strain energy</a> required to generate a given <a href="#">stress</a> in a material and <a href="#">elastic energy</a> at that stress <sup>(2)</sup> . Heat involved at the last cycle of a <a href="#">Compression Test</a> .



<b>Hold Time</b>	Time period at constant load, as required by <a href="#">Elongation &amp; Tensile Test</a> .
<b>Indentation</b>	Depth of impression in a sample ( <a href="#">indenter</a> seats fully inside the sample area) when compressed up to a specific pressure, following a <a href="#">Compression Test</a> .
<b>Indentation (k)</b>	Depth of impression in a sample (indenter seats fully inside the sample area) when compressed up to 1.060 kPa, following a <a href="#">Compression Test</a> .
<b>Indenter</b>	Hard flat body with parallel faces, usually a circular metal disk.
<b>Length</b>	Dimension in the <a href="#">around-the-cylinder direction</a> <sup>(1)</sup> .
<b>Load Cell</b>	A transducer which converts a value of force into a proportional electrical signal <sup>(2)</sup> .
<b>Load Reaction</b>	Blanket time response on a <a href="#">Compression Test</a> - 4 <sup>th</sup> decompression plus 5 <sup>th</sup> compression. Refer to the Load = f(Time) Graph.
<b>Machine Extension</b>	<a href="#">Extension</a> .
<b>Mounting (Extension)</b>	<a href="#">Elongation</a> (L-L <sub>0</sub> or E%) <i>which may be linked to the blanket behaviour during its dressing operation on the blanket cylinder.</i>
<b>Pre-load</b>	A test segment where the crosshead moves to load the sample to a specified value before a test starts. Data is (usually) not captured during the pre-load segment. <sup>(2)</sup>
<b>Rupture</b>	Structural failure (even partial) of the test sample with a corresponding load reduction reading on the Load = f ( <a href="#">Machine Extension</a> ) Graph at the end of the <a href="#">Elongation &amp; Tensile Test</a> .
<b>Strain</b>	Change per unit <a href="#">length</a> in a linear dimension of a part or sample, usually expressed in % strain, based on original length of the sample <sup>(2)</sup> .
<b>Strain Energy</b>	Measure of energy absorption characteristics of a material under load. It is equal to the area under the <a href="#">stress-strain</a> curve, and is a measure of the toughness of a material. <sup>(2)</sup>
<b>Stress</b>	Load on a sample divided by the area through which it acts <sup>(2)</sup> .
<b>Tensile (rupture)</b>	Full <a href="#">Elongation &amp; Tensile Test</a> length increase (from initial <a href="#">length</a> to length at <a href="#">rupture</a> ).
<b>Tensile Strength</b>	Force per unit <a href="#">width</a> required for breaking a blanket under longitudinal <a href="#">stress</a> in the <a href="#">around-the-cylinder direction</a> <sup>(1)</sup> .
<b>Test Marker</b>	Label placed at a chosen position on the resulting test graphs for tester software calculation purposes and ulterior analysis.
<b>Test Pressure</b>	Maximum pressure used in a <a href="#">Compression Test</a> .
<b>Thickness</b>	Sample gauge (direction perpendicular to the sample surface area).
<b>Width</b>	Dimension in the <a href="#">across direction</a> .

**Whip Reaction**

A comparatively large blanket gauge recovery as test equipment moving head inverts the direction of its movement and an initial (and relatively small) load reduction occurs, during the [Indentation Test](#).

**Window**

A defined axis range on specific Graph areas:

- Time Range on Compression [Load Reaction](#) Graphs - Load = f(T);
  - Machine Extension Range on [Hysteresis](#), [Elongation](#) and [Tensile](#) Graphs - Load = f(ME);
  - Machine Extension Range on [Gauge Loss](#) and [Yield](#) Graphs - ME = f(T).
- (Other axis ranges depend on particular test procedure prescriptions.)

**Yield** (Yield Point Elongation<sup>(2)</sup>)

Difference between the elongation of the sample at the start and at the finish of discontinuous yielding (*the area in which an increase in [strain](#) occurs without an increase in [stress](#)*)<sup>(2)</sup>. Sample [length](#) increase when applied a 500 N constant load for 10 min, during an [Elongation & Tensile Test](#). *This result may be related to the register and dimensional stability behaviour of the blanket on the press during its printing life.*

**Young's Modulus** (Modulus of Elasticity<sup>(2)</sup>)

Rate of change of [strain](#) as a function of [stress](#). The slope of the straight line portion of a stress-strain diagram.<sup>(2)</sup> Tangent modulus of elasticity is the slope of the stress-strain diagram<sup>(2)</sup> taken at the maximum slope by the Materials Tester software. It is the highest slope of the Load = f([Machine Extension](#)) Graph of an [Elongation & Tensile Test](#).

**Zero Point Load**

[Pre-load](#).

<sup>(1)</sup> Based on ISO 12636.

<sup>(2)</sup> Based on [www.instron.us/wa/glossary](http://www.instron.us/wa/glossary).