TEST REPORT 18-1053-01

Samples received :

Name	***Date of receipt***
belt yellow	10/09/2018

Aim of the test :

Determination of strength, elasticity and colour resistance to water and perspiration

Test conditions :

Strength and elasticity

Standard:	ISO 13934-1 (2013)*
Method:	A piece of belt is clamped over its full width at a gauge length of 10 cm. Test speed: 100 mm/min. The elongation is determined from a pretension of 2 N. The result consists of maximum force and elongation at this maximum force. Additionally, the force (in kg) at 10, 20, 30, 40, 50, 60 and 70% elongation is determined.
Number of tests:	1
Test conditions:	20 ± 2 °C and 65 ± 4 % R.H.

The test results only apply to materials that correspond to the tested sample. Forgery will be legally prosecuted, just like partial reproduction without prior written permission . Tests that are marked *are accredited. Advices and interpretations are not covered by the accreditation.

BELAC
ISO/IEC17025
055-test

Colour fastness to acid and alkaline perspiration

Standard:	ISO 105-E04 (2013) *, NBN EN ISO 105-E01 (2013)*
Method :	Two test samples composed of the fabric to be tested and two adjacent fabrics or an adjacent multifibre fabric are immerged in an acid and alkaline histidine solution. The test fabric is contacted, under pressure, with the adjacent fabric(s) at 37°C. The colour change as well as the staining on the adjacent fabric(s) is evaluated against a standard grey scale with values ranging between 1 and 5. A rating of 5 means no change in colour or no staining on the adjacent fabric.
Number of tests:	Single per colour

Colour fastness to water

Standard:	NBN EN ISO 105-E01 (2013)*
Method:	A test sample is composed of a two adjacent fabrics or an adjacent multifibre fabric attached to the test sample. The sample is immersed in water and at 37°C under pressure during 4 hours. The colour change as well as the staining on the adjacent fabric(s) is evaluated against a standard grey scale with values ranging between 1 and 5. A rating of 5 means no change in colour or no staining on the adjacent fabric.
Number of tests:	Single per colour

Colour fastness to rubbing

Standard :	ISO 105 X 12 (2001)*
Method :	The sample is rubbed in dry and in wet condition with a cotton cloth put on a finger of 16 mm diameter and at a pressure of 9 N. Change of colour and staining on cotton are assessed. Assessment 5 means no staining or change of colour. Assessment 1 means staining or change of colour in the highest degree.
Number of tests :	1
Test conditions:	20 ± 2 °C and 65 ± 4 % R.H.

The tests were finished in week 38/2018

OBTAINED RESULTS

Strength and elongation at break

Parameter	Unit	Result
Strength at break	N	4916
	kg	501.1
Elongation at break	%	520

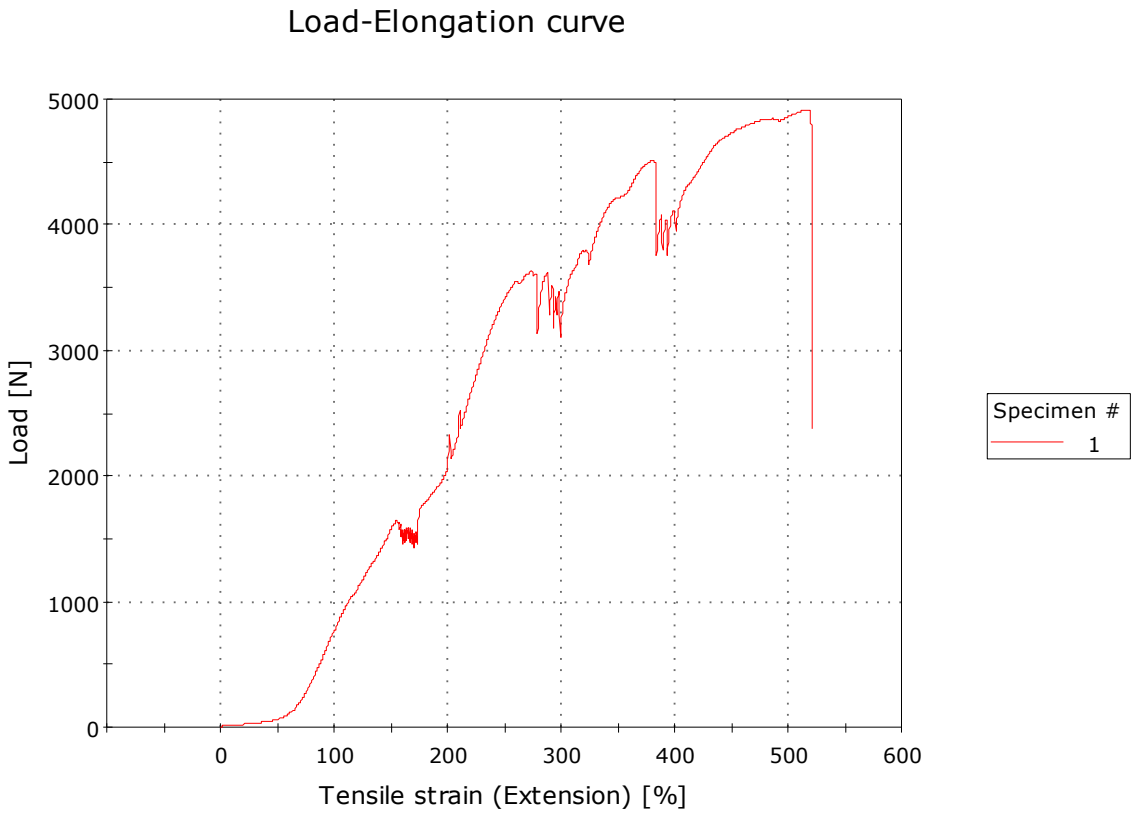

Fig 1: strength-elongation curve

Remark: the irregularities in the curve are due to movement of the belt in the clamp.

Interpretation:

The braided part of the belt can carry a weight of up to 520 kg before breaking.

Elasticity

Parameter	Unit	Result
Strength at 10% elongation	kg	1.5
Strength at 20% elongation	kg	2.2
Strength at 30% elongation	kg	3.1
Strength at 40% elongation	kg	4.3
Strength at 50% elongation	kg	6.4
Strength at 60% elongation	kg	10.5
Strength at 70% elongation	kg	20.2

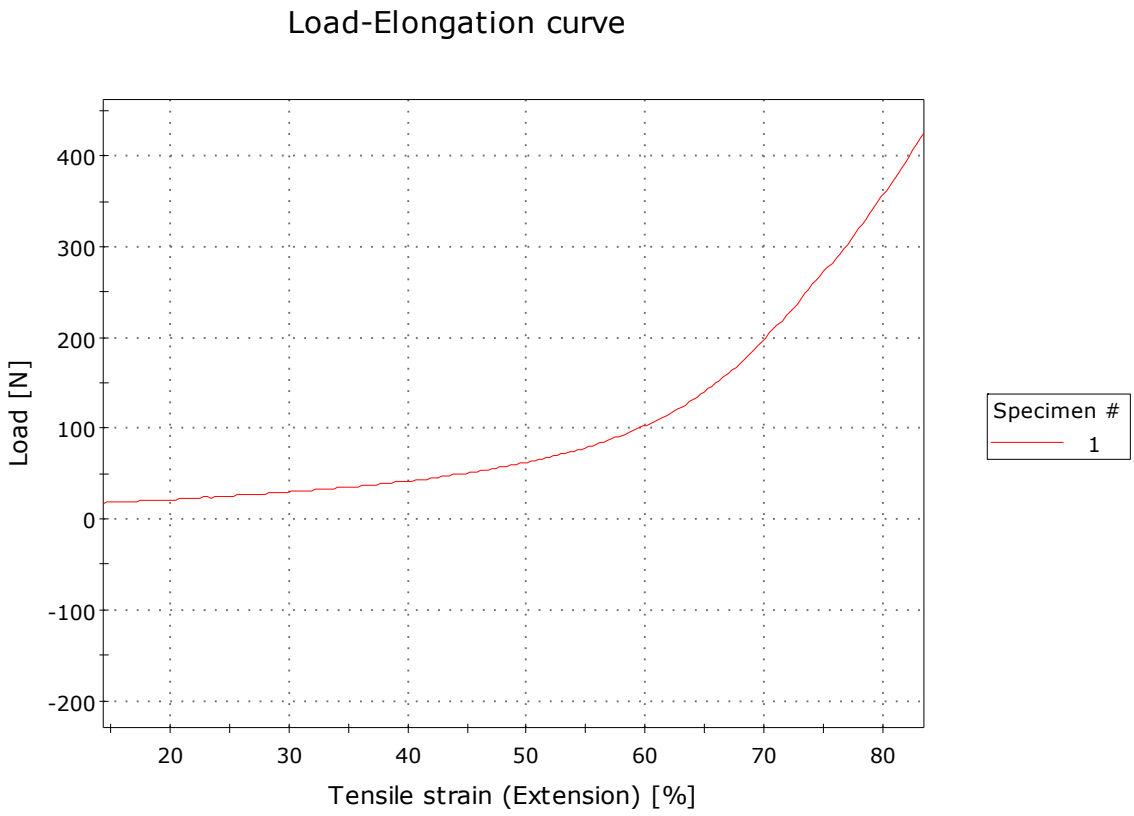

Fig 1: Detail of initial zone of strength-elongation curve

Interpretation:
When pulling the belt with a force of 6.4 kg, the belt will stretch 50%.
This means that a belt of originally 96 cm (braided part) will then be 144 cm long.
From an elongation of 60% onwards, the force starts increasing more rapidly.

Colour fastness to perspiration - Multifibre

Treatment	Colour change	Staining					
		Wool	Acryl	polyester	polyamide	Cotton	acetate
Alcaline	5	4	4	4	4-5	3-4	3-4
Acid	5	4-5	4	4-5	4-5	4	4

Colour fastness to water - Multifibre

Treatment	Colour change	Staining					
		Wool	Acryl	polyester	polyamide	Cotton	acetate
Water	5	4-5	4	4	4	4	4

Colour fastness to rubbing

Parameter	**Unit**	change of colour	Staining
dry	-	5	4
wet	-	5	4-5