

Belcoro Quality Standards



Belcoro®
THE DISTINGUISHED YARN

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Sehr geehrter Leser,

die dritte überarbeitete und erweiterte Ausgabe der «Belcoro Quality Standards» liegt vor. Wie immer, möchten wir die Informationen, die Sie bei der Benutzung dieser Broschüre unterstützen sollen, voranstellen.

Die «Belcoro Quality Standards August 2004» zeigen Standards für Garne und Textilien. Die Garnstandards sind in Graphen aufgeführt, die das jeweils notwendige Minimum zur Erreichung einer Garnzertifizierung darstellen. Die Kurven spiegeln gleichzeitig die für die Weiterverarbeitung notwendigen Anforderungen wieder. Da sich die Anforderungen an die Garne je nach Einsatzgebiet unterscheiden, haben wir seit der Einführung der «Belcoro Quality Standards» eine Einteilung der Garne in Strick- und Webgarne vorgenommen. Weitere Einteilungskriterien sind die eingesetzten Fasern, bzw. Fasermischungen und die Garnfeinheiten.

Erstmals wurden in dieser Ausgabe der «Belcoro Quality Standards» bei den Strickgarnen Empfehlungen für den Drehungskoeffizienten gegeben. Hiermit sind wir der Forderung des Marktes nach Maschenwaren mit ausgewogenen Trageeigenschaften und weichem Griff nachgekommen. Die Angabe des Drehungskoeffizienten soll Spinnereien dabei unterstützen, ein für eine weiche Maschenware einsetzbares Garn herzustellen. Da allerdings bei der Herstellung einer solchen Maschenware noch zahlreiche andere Einflussparameter in der Weiterverarbeitung das endgültige Resultat beeinflussen, erhält ein Garn, welches **alle** in den jeweiligen Kurven dargestellten Anforderungen erfüllt, das Prädikat **«prepared for Softknits»**.

An dieser Stelle weisen wir jedoch darauf hin, dass anders als bei den restlichen in den «Belcoro Quality Standards» dargestellten Anforderungen an die Garne, die Nichteinhaltung des angegebenen Drehungskoeffizienten kein K.O. Kriterium ist, welches die Zertifizierung eines Garnes in Frage stellen könnte.

Der Autocoro bietet die Möglichkeit, unterschiedlichste Fasern und Fasermischungen zu verarbeiten. Diese alle in den «Belcoro Quality Standards» aufzuführen, würde den Rahmen sprengen. Daher werden hier nur die am häufigsten eingesetzten Materialien, bzw. deren Mischungen dargestellt. Sollten die in Ihrem Unternehmen verarbeiteten Fasermaterialien nicht aufgeführt sein, können diese aus der «Belcoro Quality Standards» Datenbank für Sie abgefragt und Ihnen mitgeteilt werden.

Die «Belcoro Quality Standards» für textile Flächen sind in Wertetabellen aufgeführt. Die für die Zertifizierung ermittelten Prüfwerte müssen zum Erhalt des Zertifikates innerhalb der angegebenen Grenzen liegen. Die Einteilung erfolgt hier nach Produktgruppen.

Weitere Informationen zur Belcoro Zertifizierung gibt die Website www.belcoro.com.

Dear Reader,

The revised and expanded third edition of «Belcoro Quality Standards» is available. As with the previous editions, we would like to make some initial remarks to assist you in using this brochure to your best advantage.

The «Belcoro Quality Standards August 2004» include standards for yarns and for textiles. The Yarn Standards are shown in the form of graphs, from which the respective minimum values required for Belcoro certification of the yarn can be seen. The curves also inform about the requirements the yarn has to meet in the textile production processes following spinning. As the requirements on the yarn vary according to the field of application, the «Belcoro Quality Standards» have right from the beginning been subdivided into Knitting Yarns and Weaving Yarns. Other categorization criteria are the fibres or fibre blends processed and the yarn counts spun.

In the present edition of the «Belcoro Quality Standards» we have for the first time included recommendations regarding the twist coefficients to be used for knitting yarns. This is in response to the demands from the market for knitted goods with well-balanced wear properties and a soft handle.

The indication of recommended twist multipliers is meant to assist spinners in producing yarns that are best suitable for soft knitted goods. A yarn that is made in conformity with the proposed twist coefficient and complies with a number of other factors influencing the results in the production processes following spinning, as determined by the respective curves of the «Belcoro Quality Standards» is awarded the rating **«prepared for Softknits»**.

At this point, we would like to make it clear that – unlike the other, imperative, requirements on the yarn specified in the «Belcoro Quality Standards» – non-observance of the twist multipliers recommended will not be considered as having a «knock-out» effect which in itself might endanger Belcoro quality certification of the yarn.

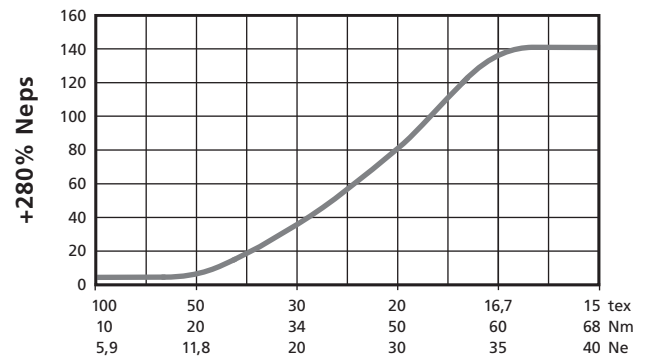
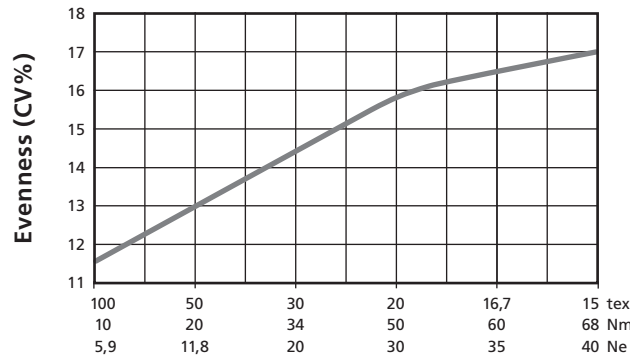
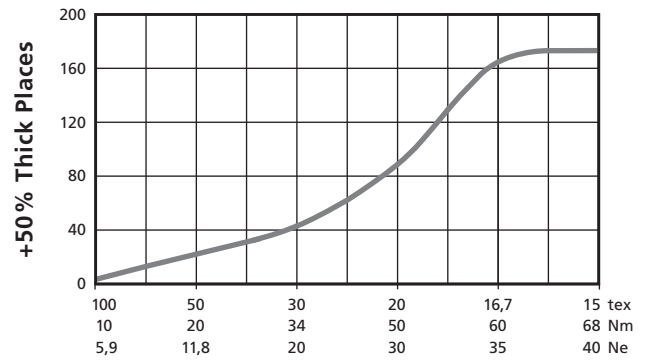
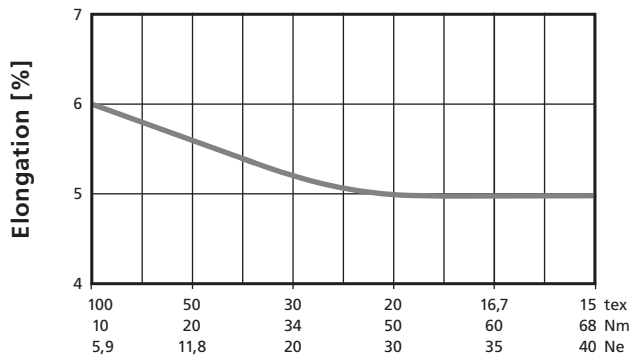
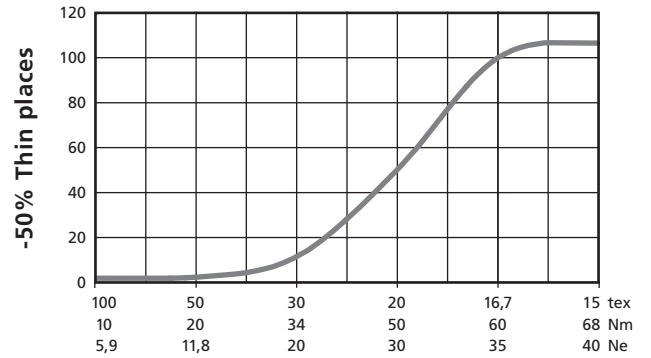
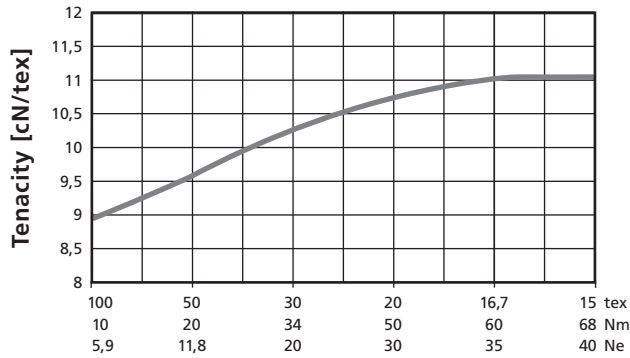
The Autocoro allows spinning of a wide range of different fibres and fibre blends. Listing all of them in the «Belcoro Quality Standards» would go beyond the scope of this brochure. Instead, the brochure sets out only the most commonly used materials and blends. If the fibre material used in your operation is not shown in the brochure, pertinent data can be found by us in the «Belcoro Quality Standards» database and communicated to you.

The «Belcoro Quality Standards» for textile fabrics are arranged in the form of tables of values. For a product to be eligible for Belcoro Certification, the test values determined for the purpose of certification have to be within the indicated limits. The classification is by Product Group.

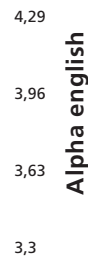
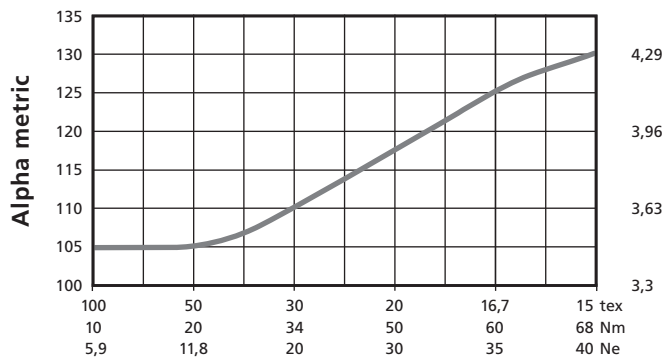
Additional information regarding the Belcoro Certification can be accessed on the website www.belcoro.com.

Belcoro Quality Standards for Knitting Yarns

100 % Cotton

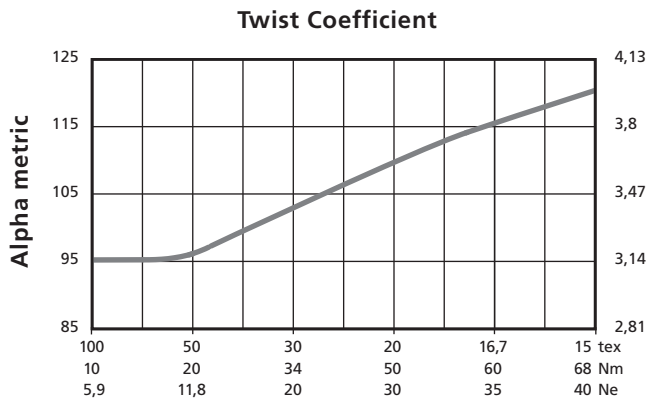
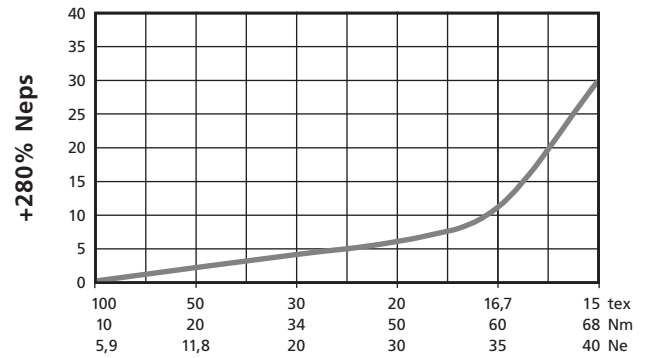
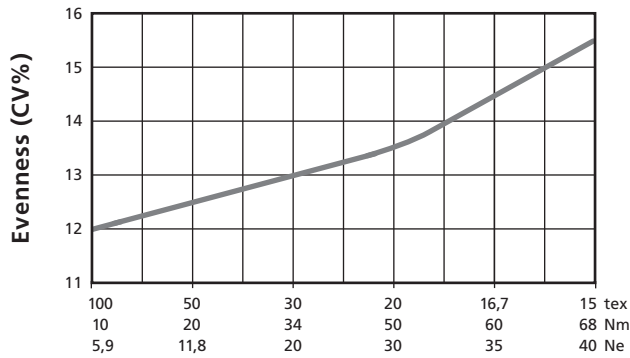
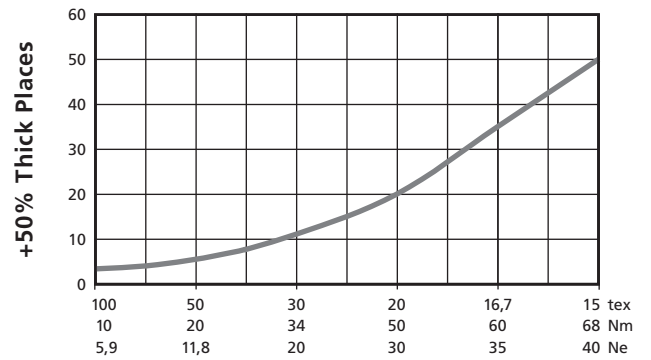
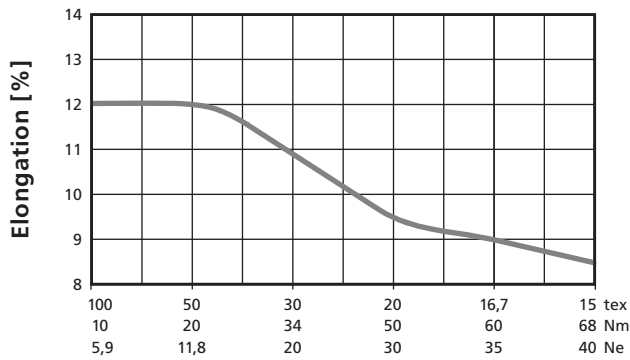
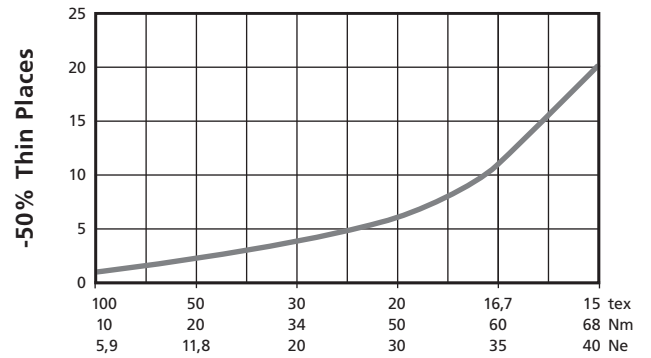
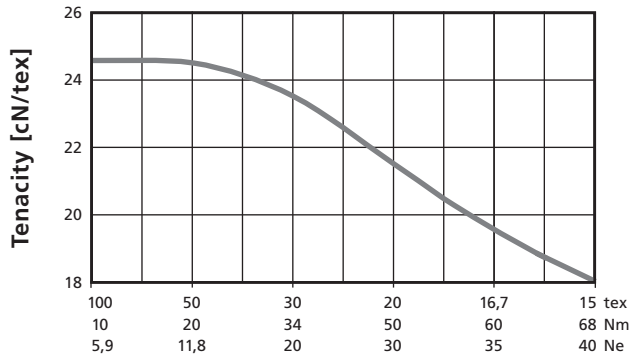


Twist Coefficient



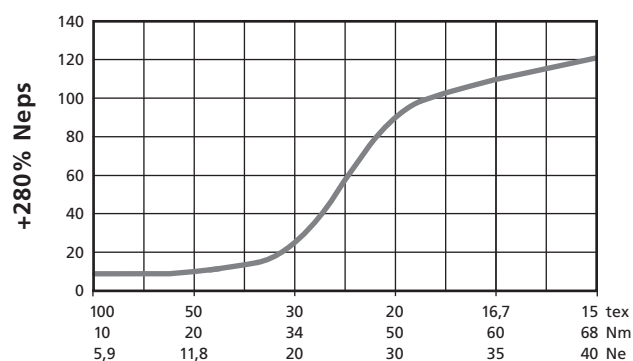
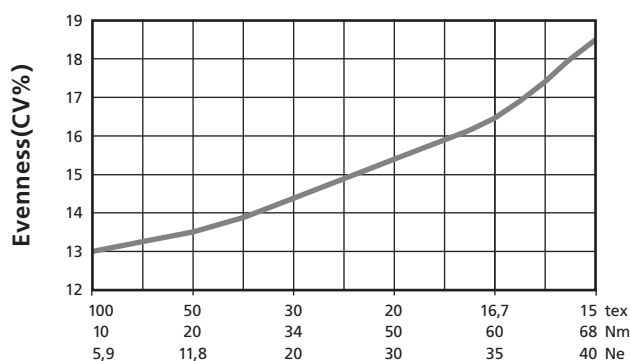
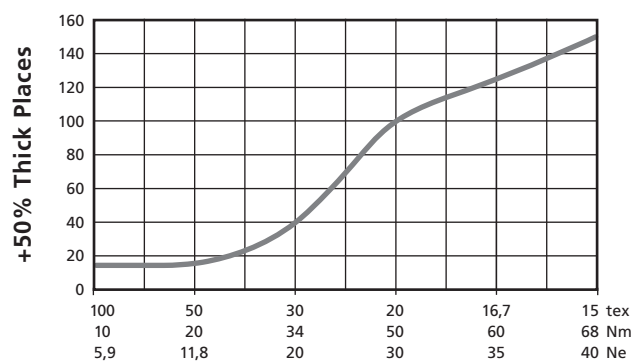
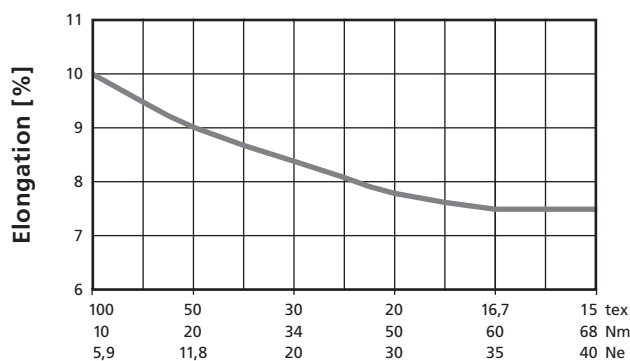
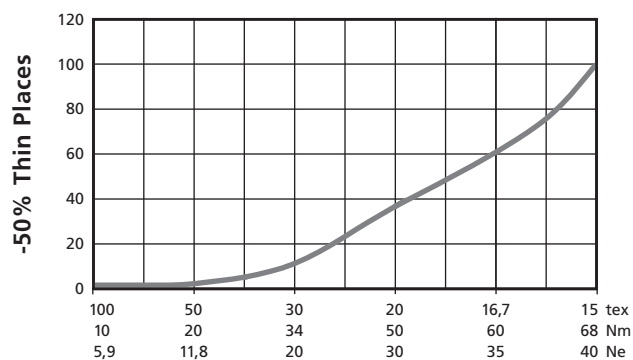
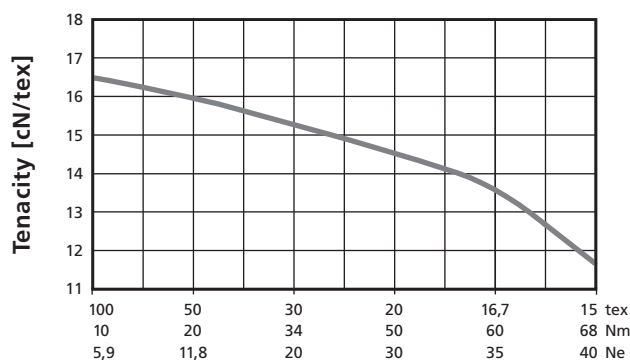
Belcoro Quality Standards for Knitting Yarns

100 % Polyester

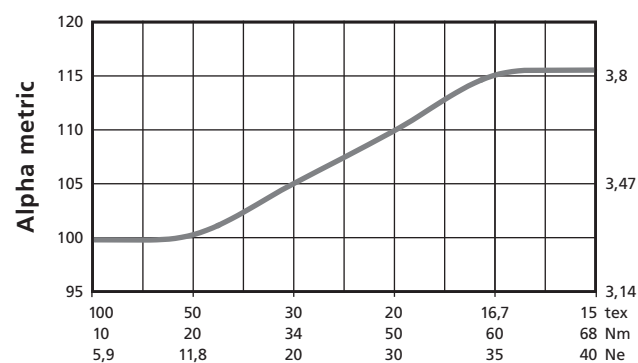


Belcoro Quality Standards for Knitting Yarns

67 % Polyester / 33 % Cotton



Twist Coefficient

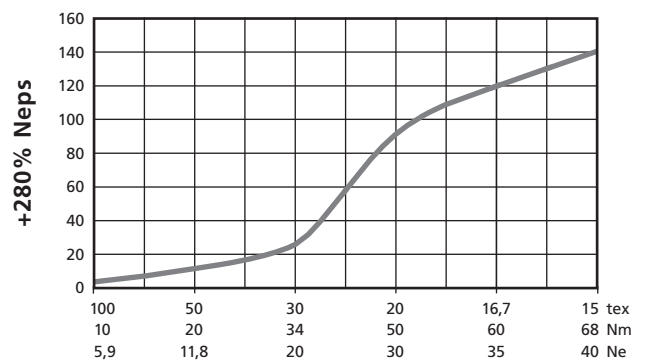
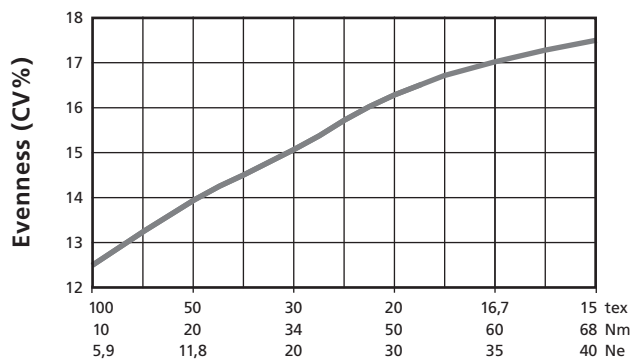
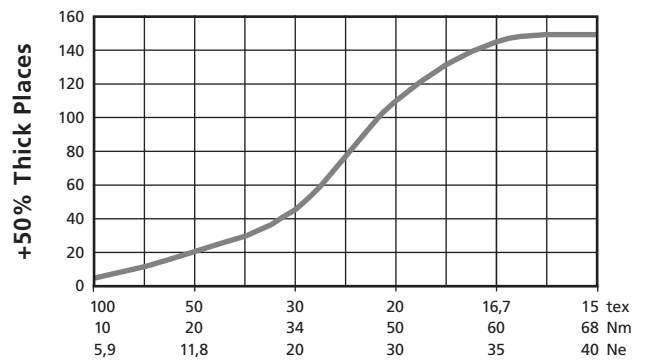
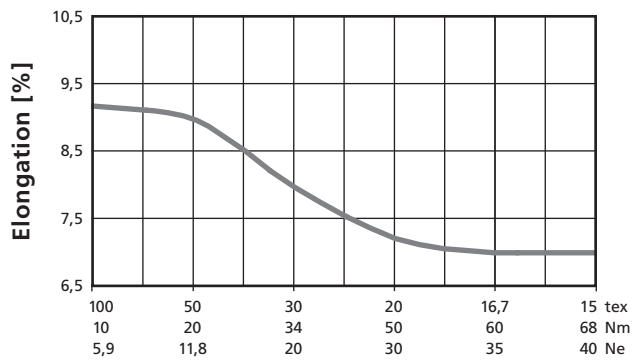
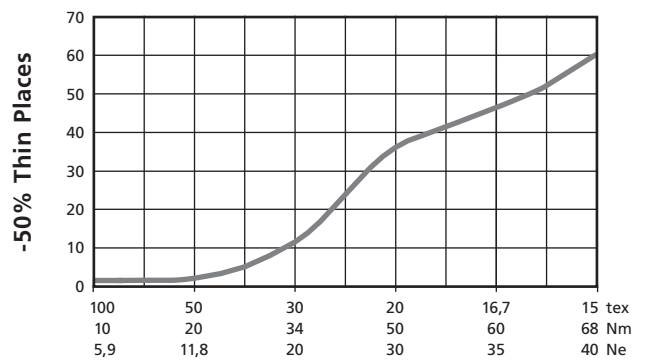
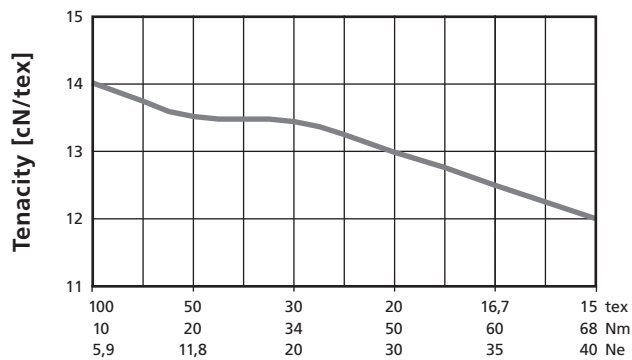


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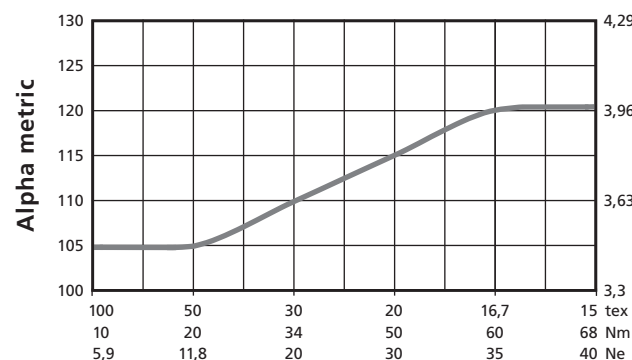
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Belcoro Quality Standards for Knitting Yarns

50 % Polyester / 50 % Cotton

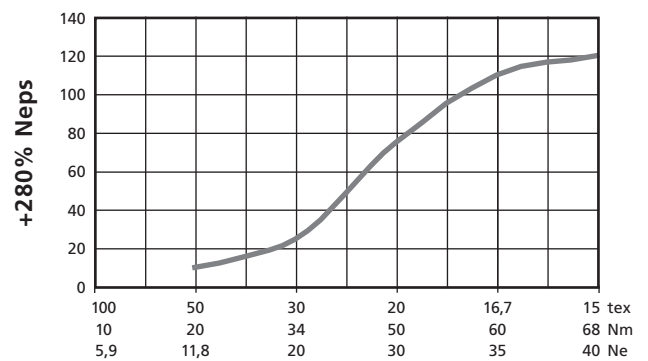
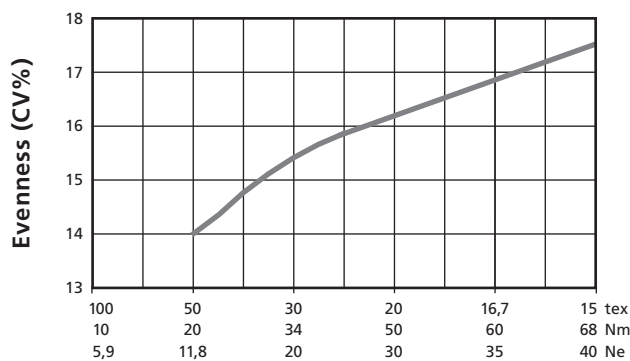
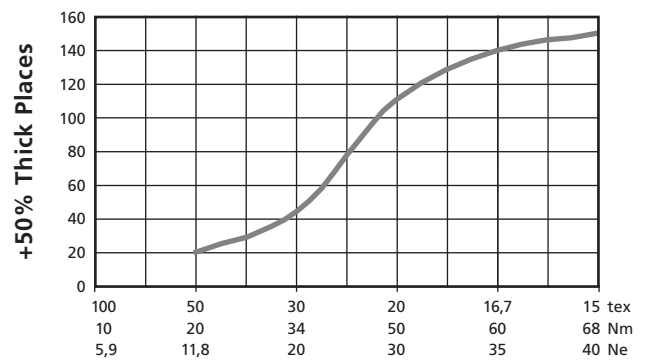
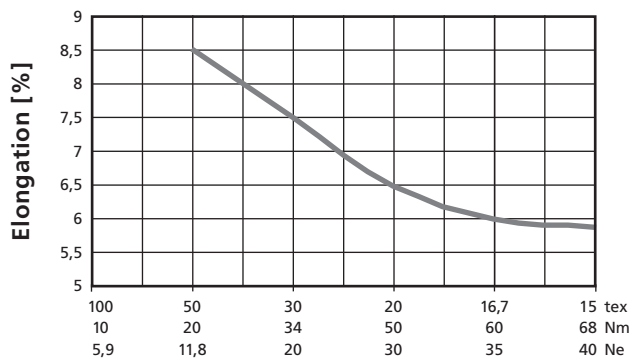
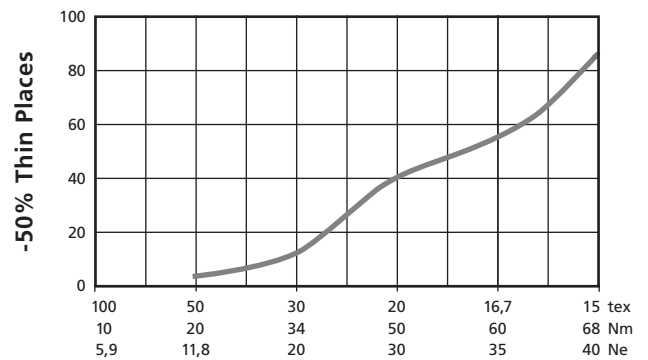
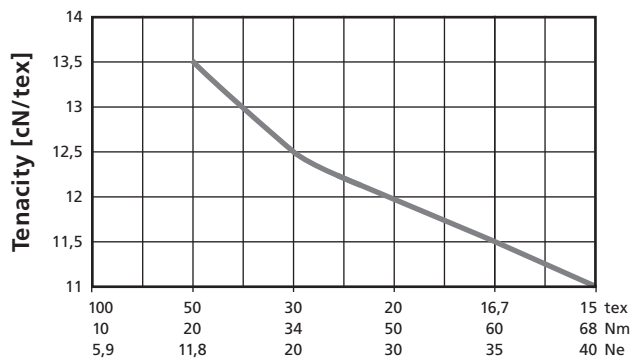


Twist Coefficient

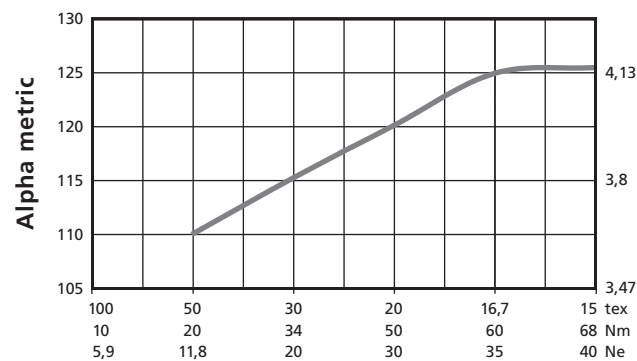


Belcoro Quality Standards for Knitting Yarns

33 % Polyester / 67 % Cotton



Twist Coefficient



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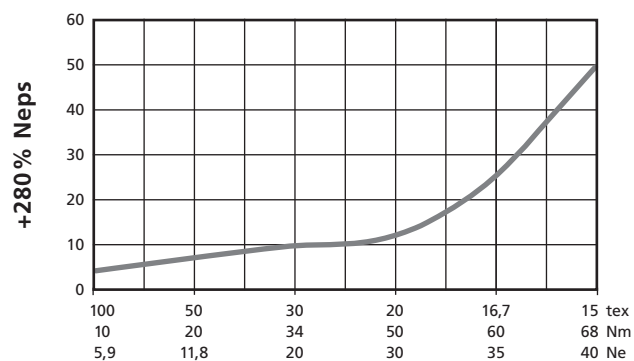
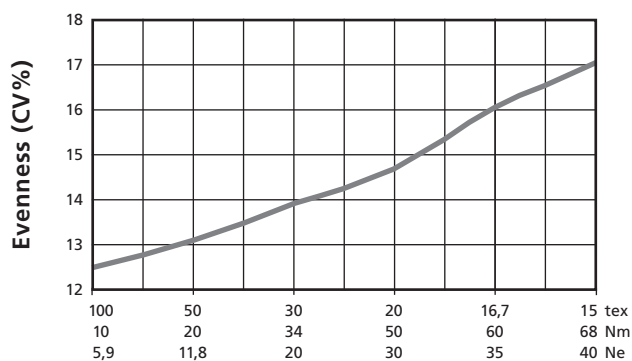
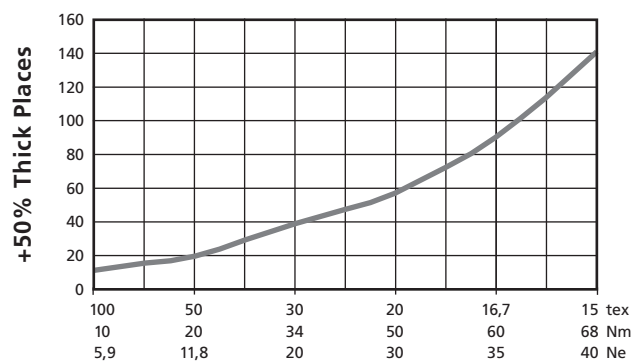
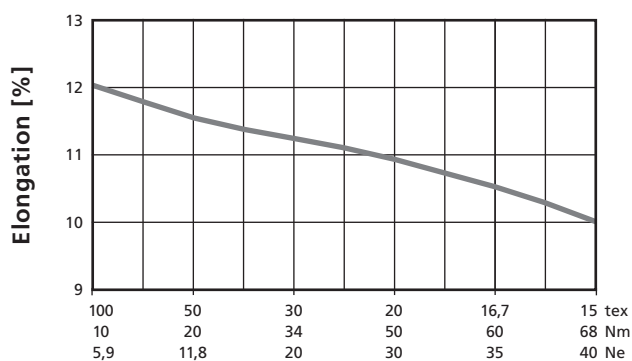
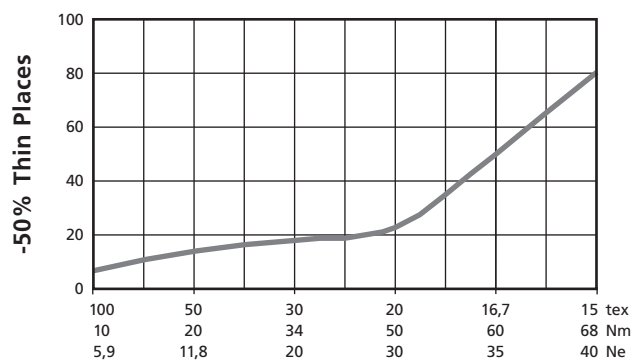
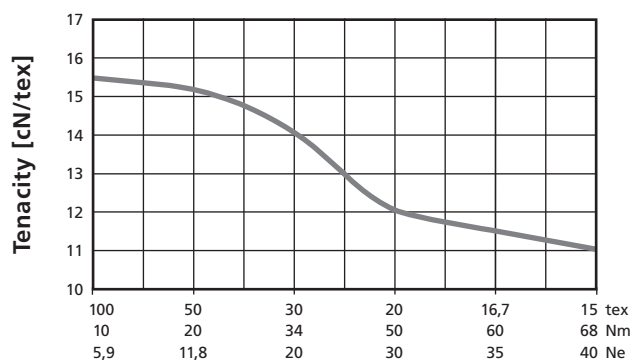
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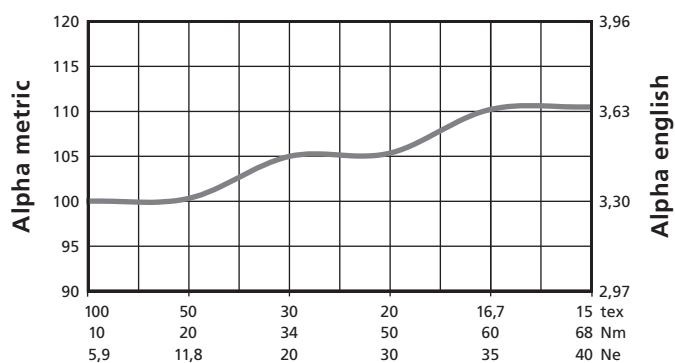
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Belcoro Quality Standards for Knitting Yarns

65 % Polyester / 35 % Viscose

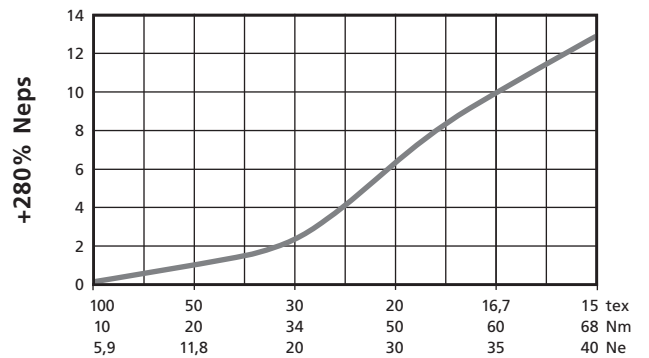
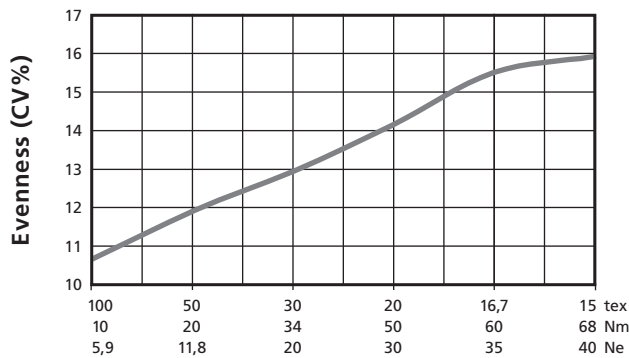
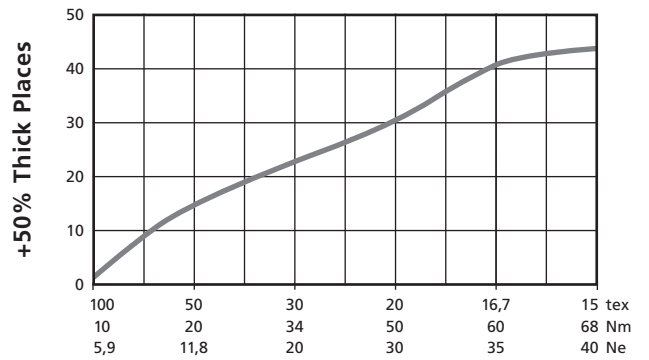
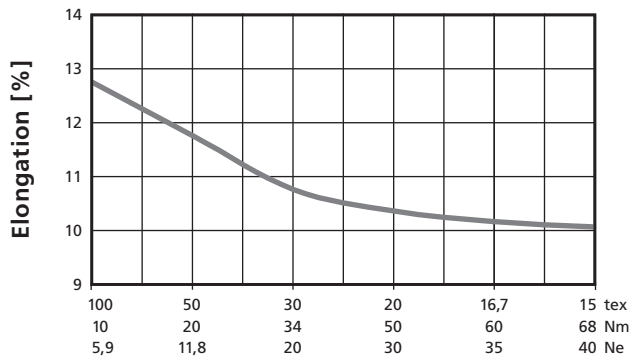
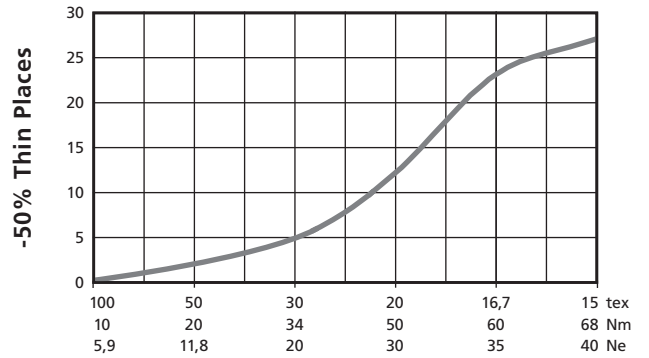
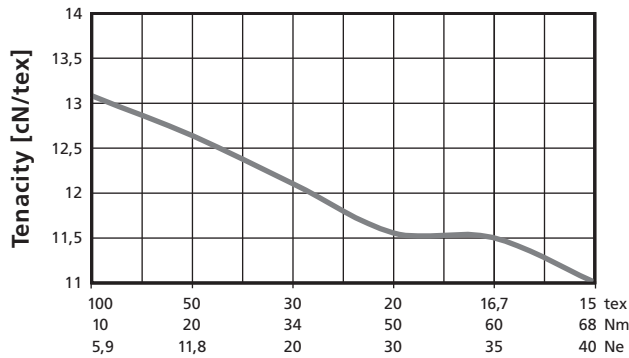


Twist Coefficient

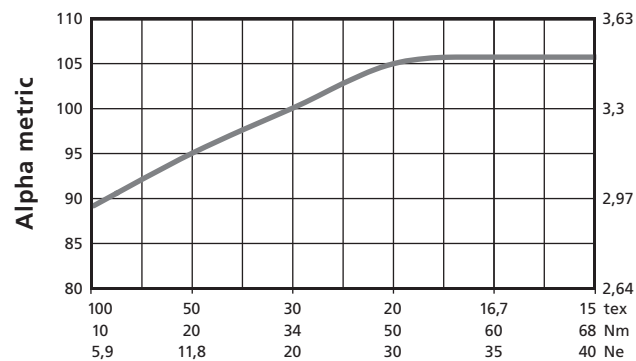


Belcoro Quality Standards for Knitting Yarns

100 % Viscose



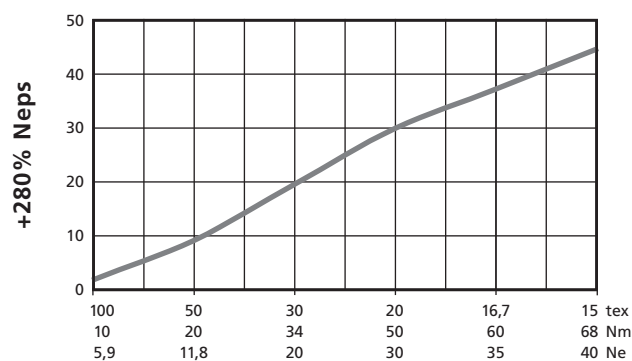
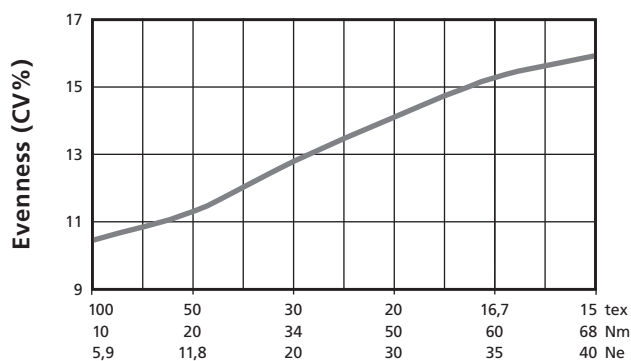
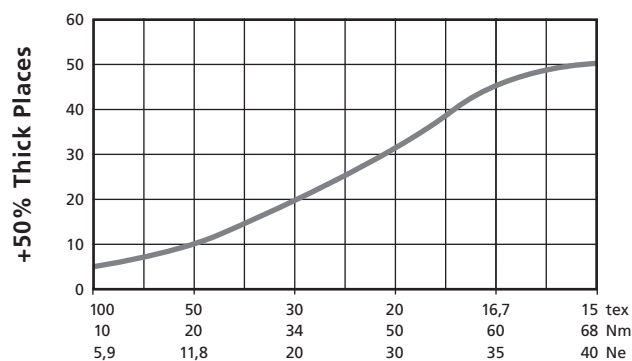
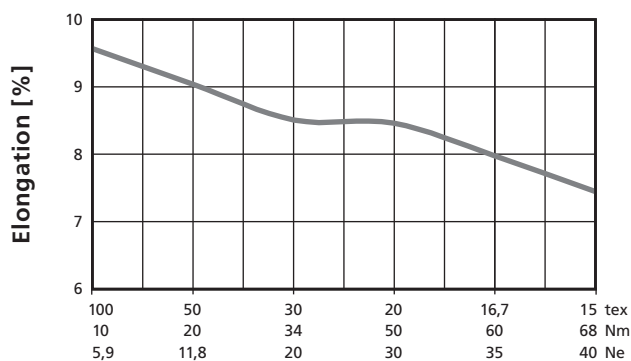
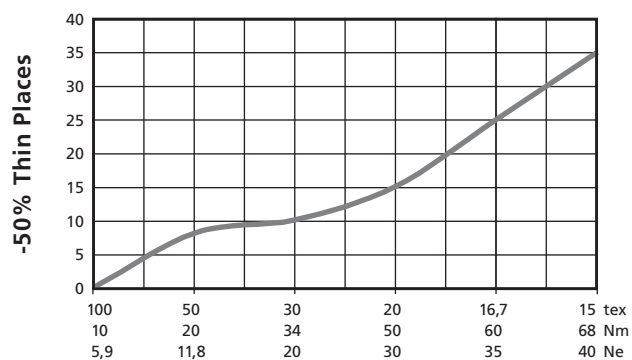
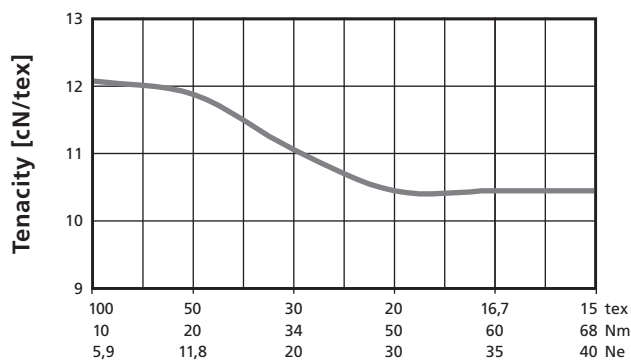
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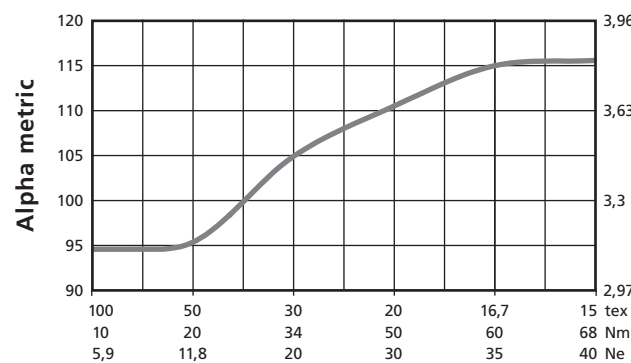
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Belcoro Quality Standards for Knitting Yarns

65 % Viscose / 35 % Cotton

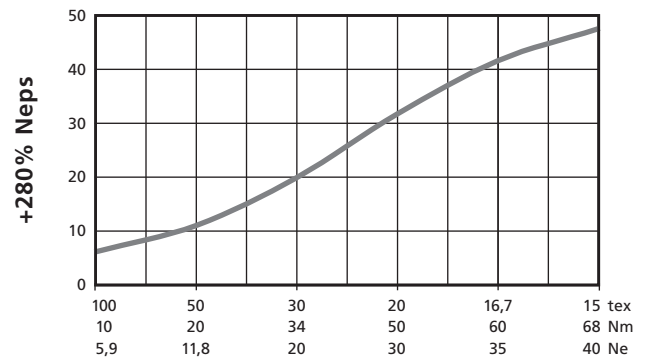
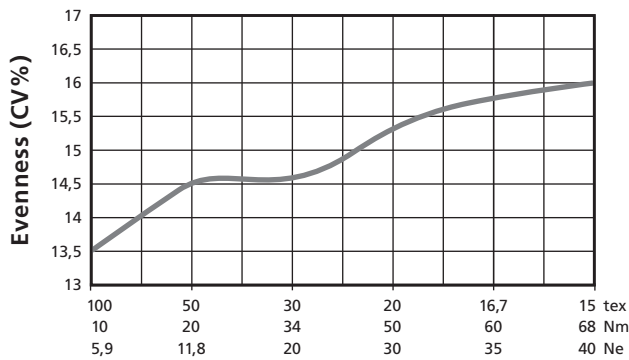
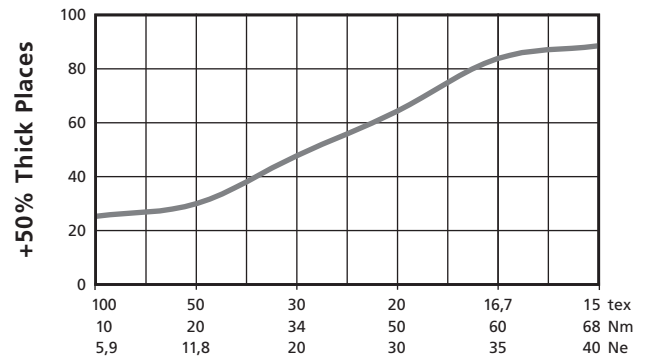
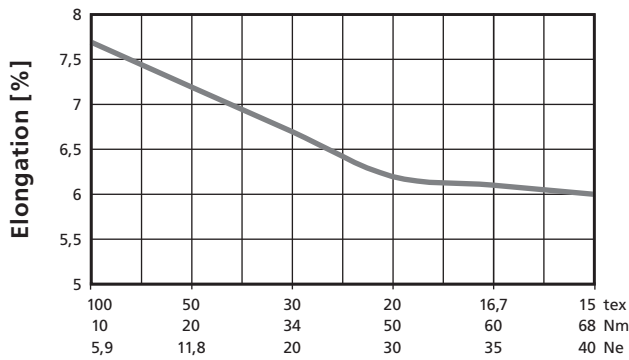
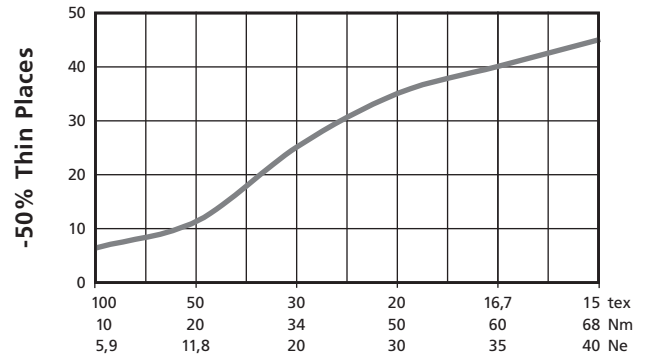
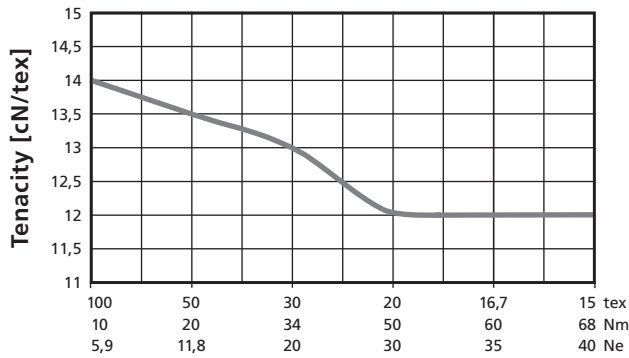


Twist Coefficient

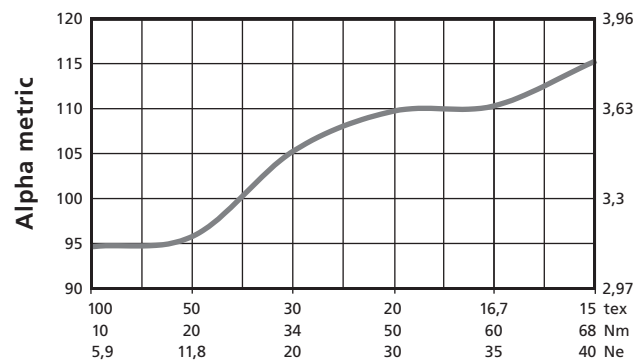


Belcoro Quality Standards for Knitting Yarns

100 % Modal

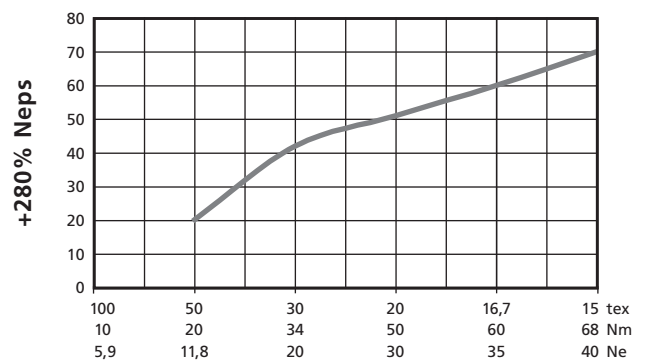
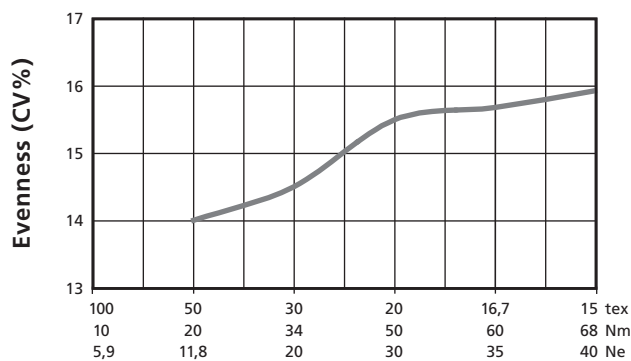
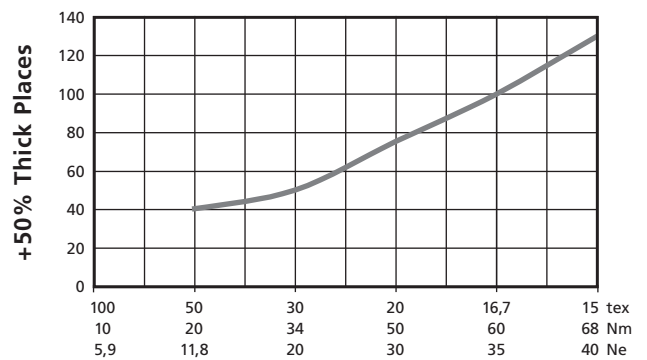
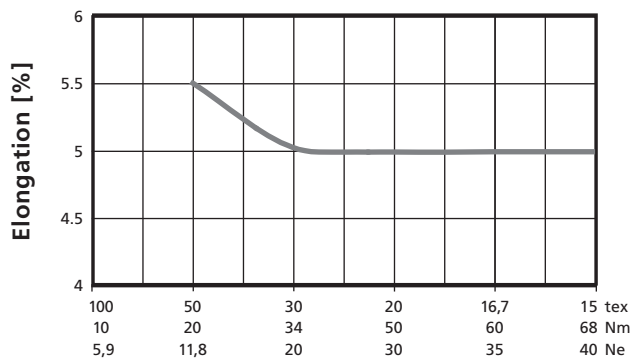
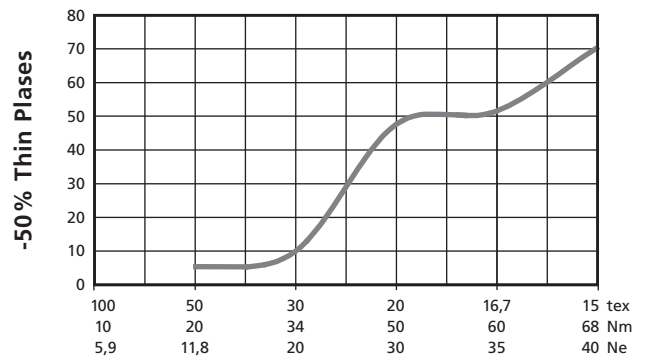
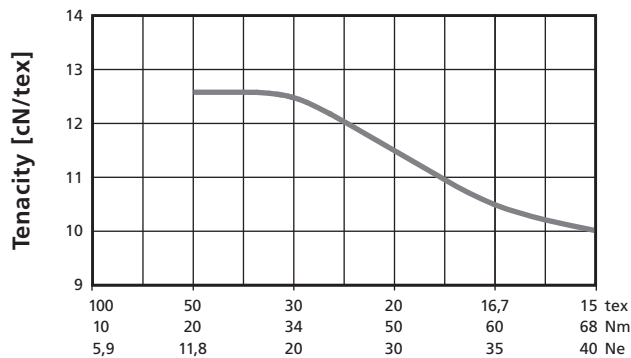


Twist Coefficient

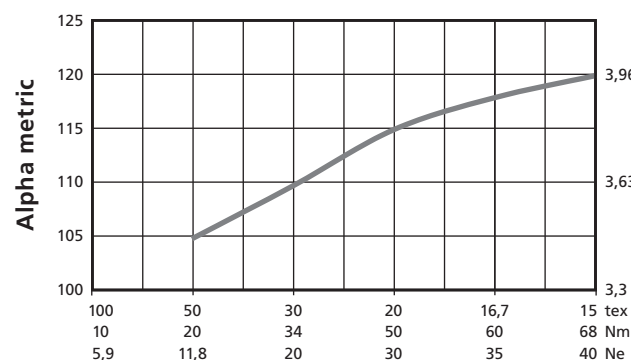


Belcoro Quality Standards for Knitting Yarns

50 % Modal / 50 % Cotton



Twist Coefficient



Alpha english

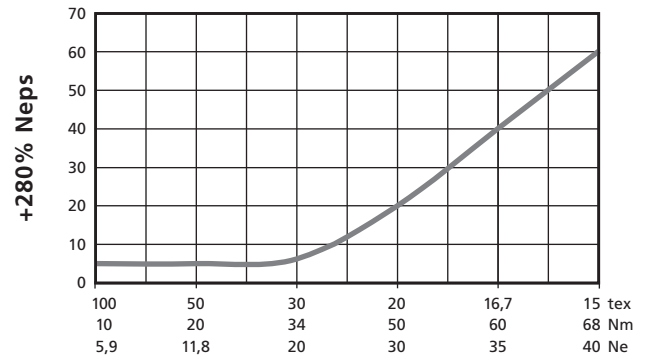
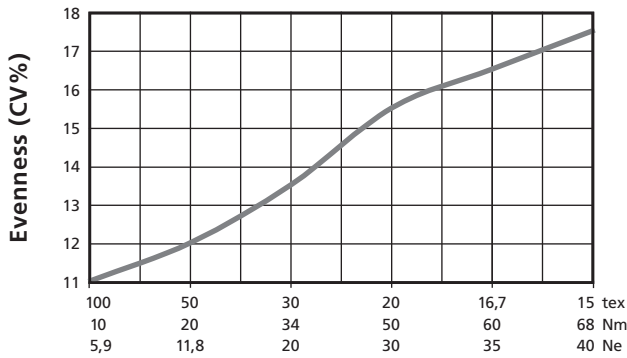
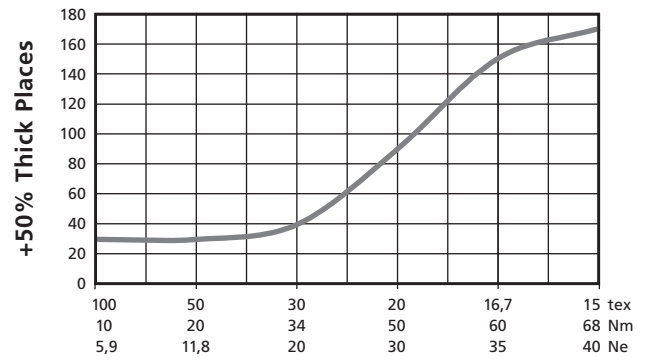
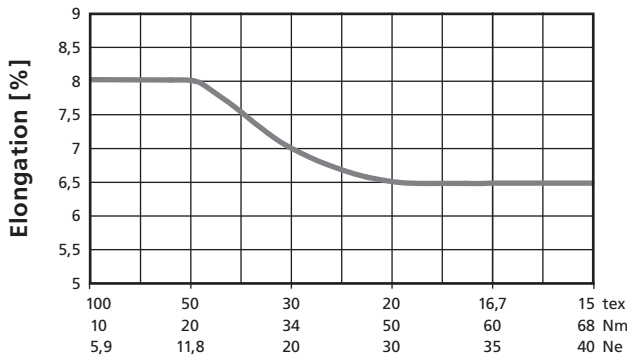
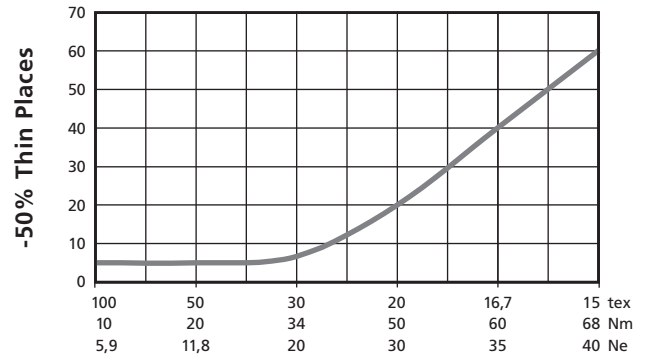
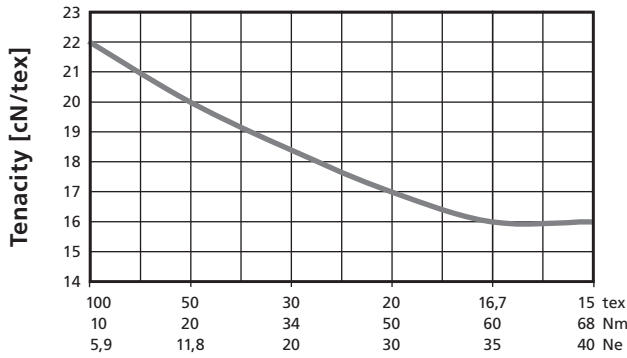
3,96

3,63

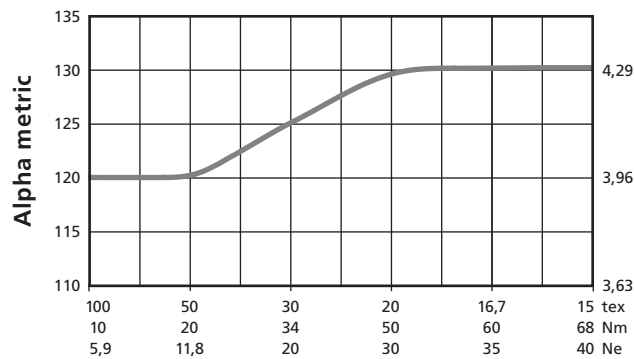
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Belcoro Quality Standards for Knitting Yarns

100 % Lyocell



Twist Coefficient



Alpha english

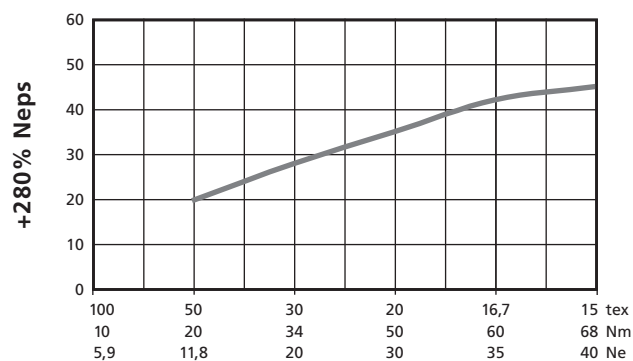
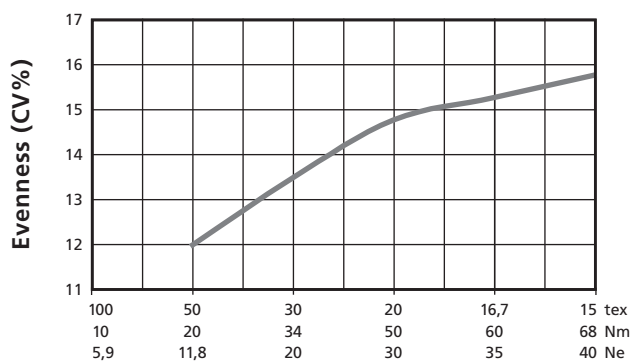
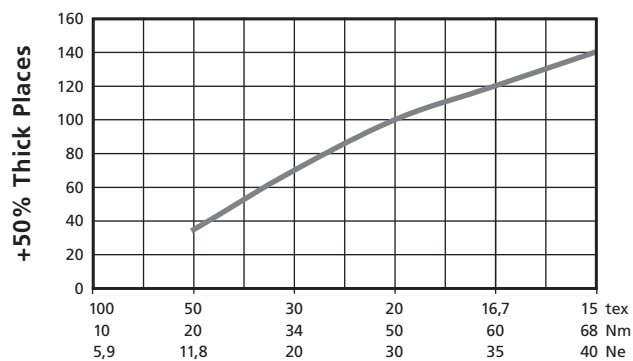
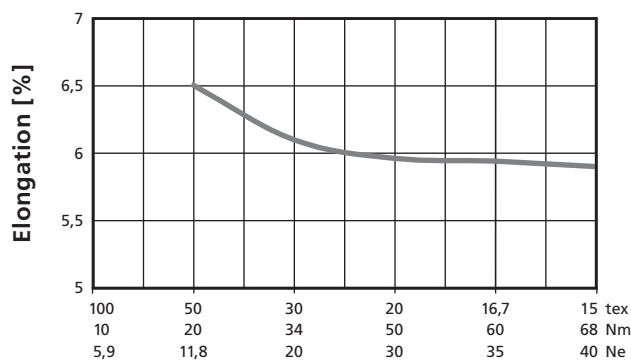
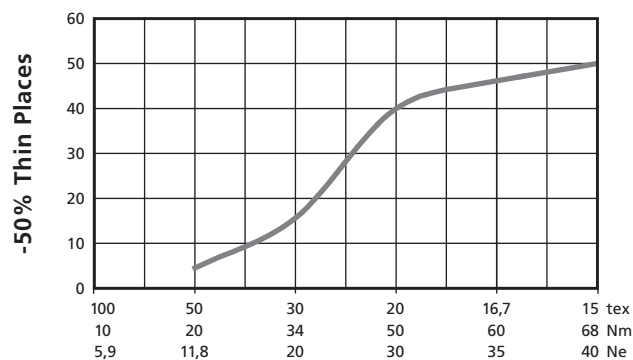
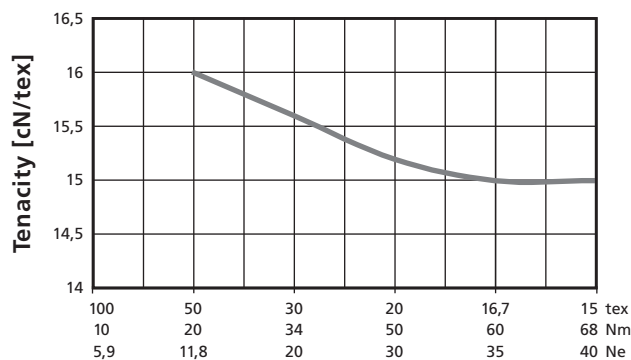
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3,96

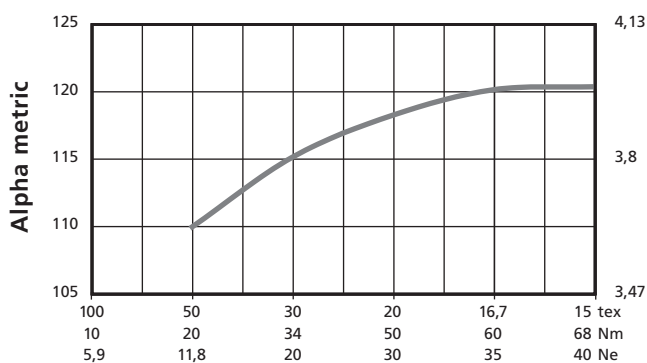
3,63

Belcoro Quality Standards for Knitting Yarns

50 % Lyocell / 50 % Cotton

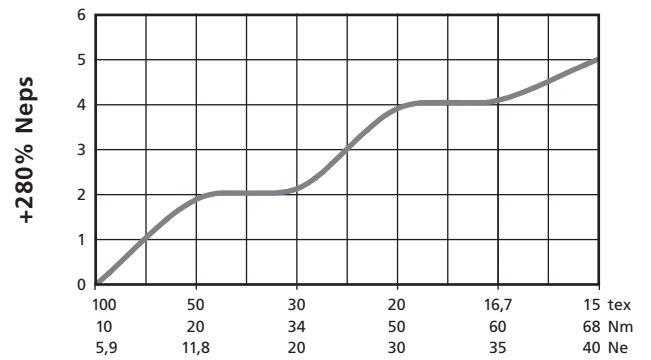
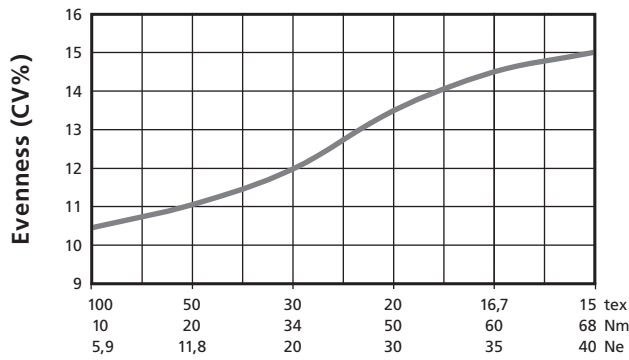
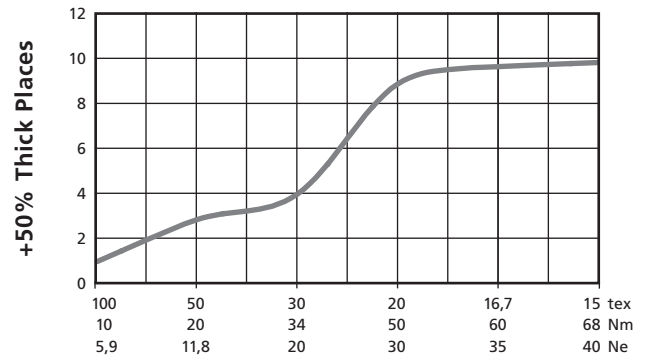
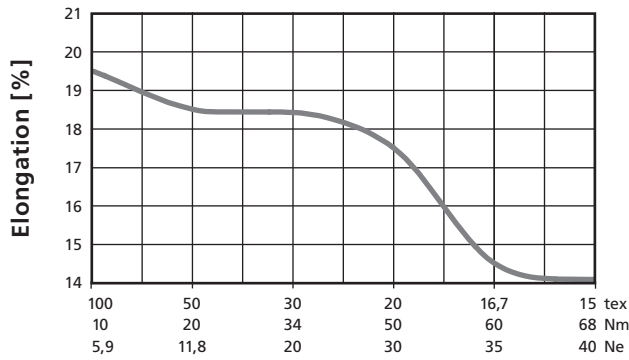
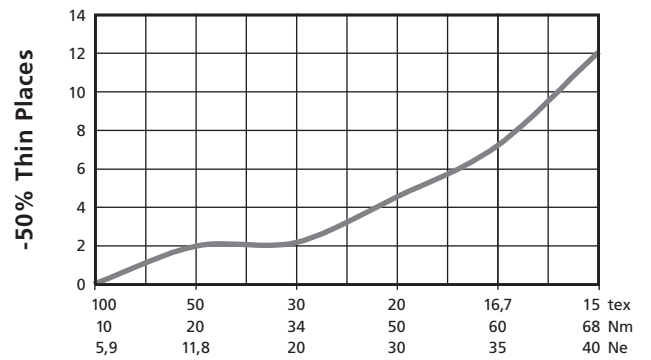
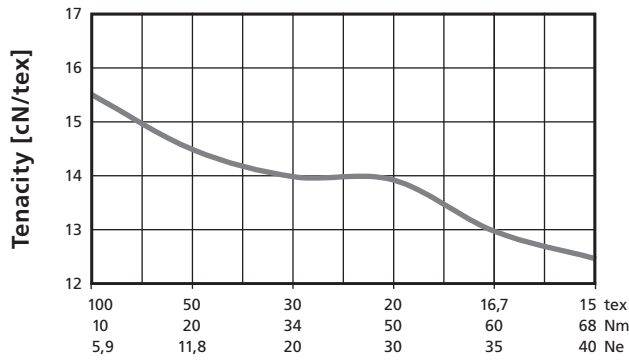


Twist Coefficient

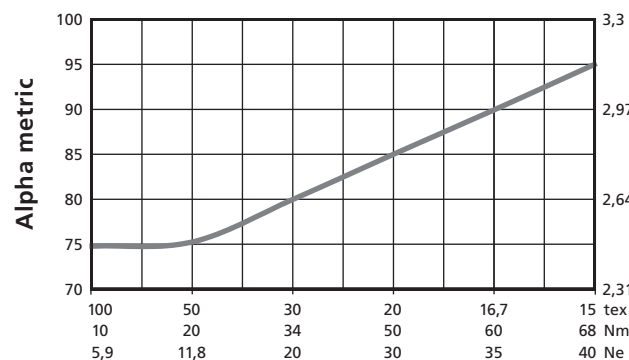


Belcoro Quality Standards for Knitting Yarns

100 % Polyacryl

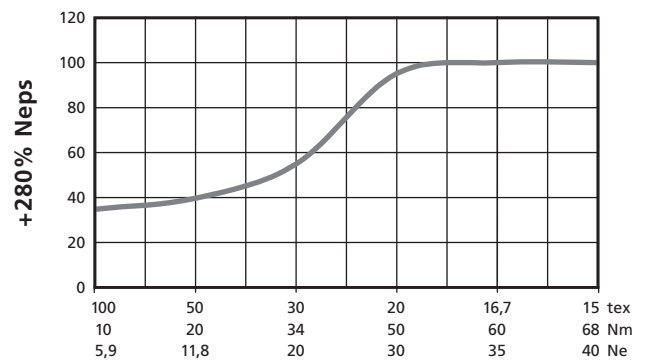
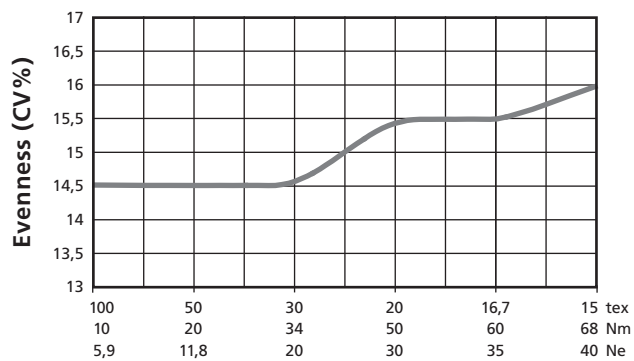
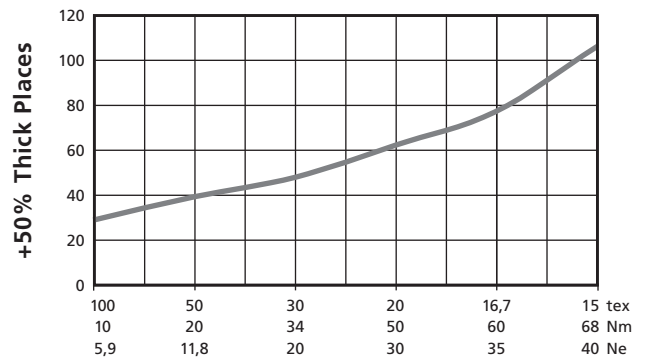
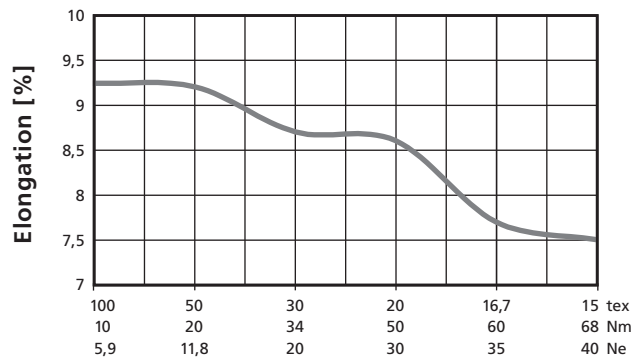
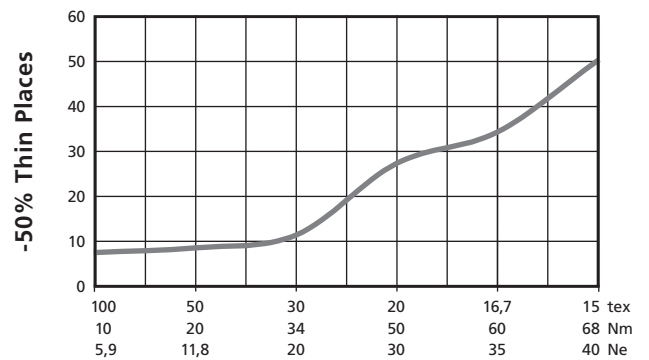
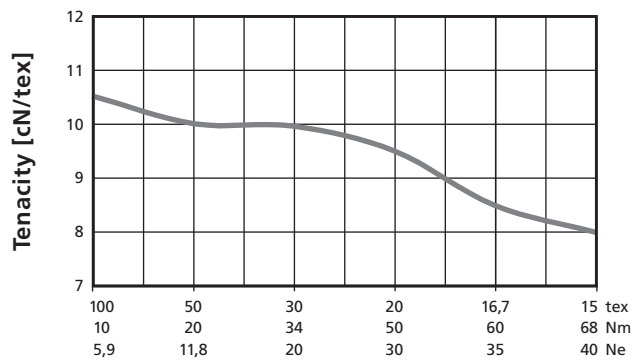


Twist Coefficient

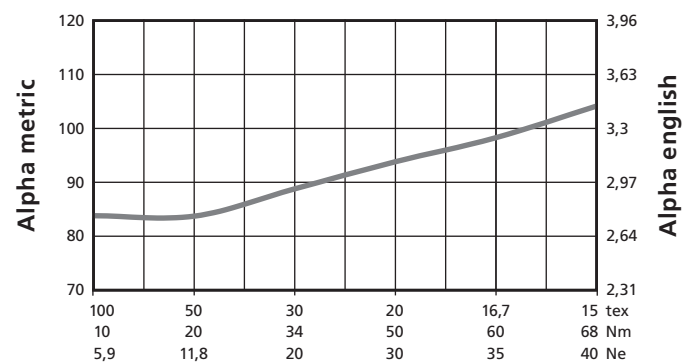


Belcoro Quality Standards for Knitting Yarns

50 % Polyacryl / 50 % Cotton

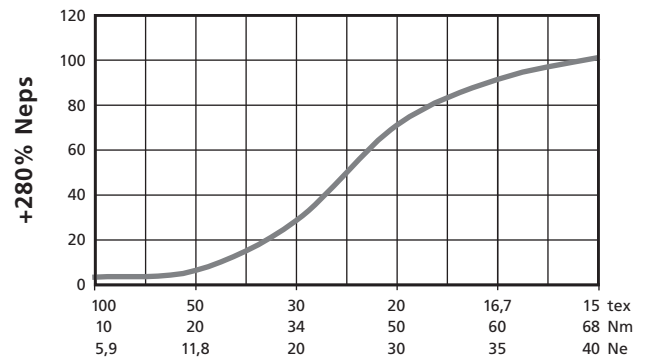
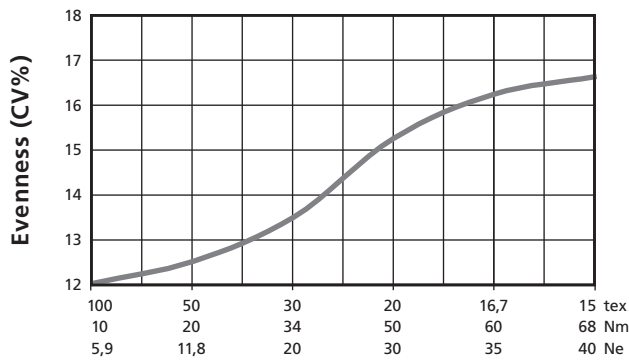
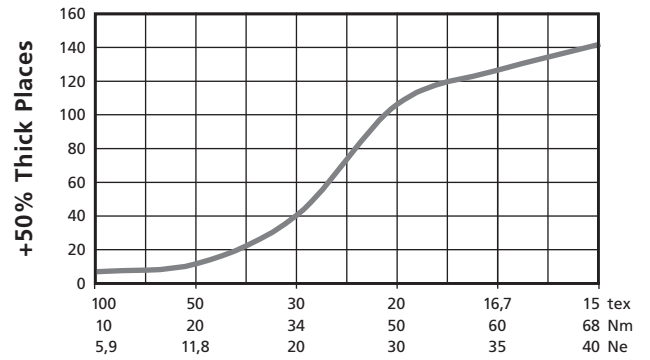
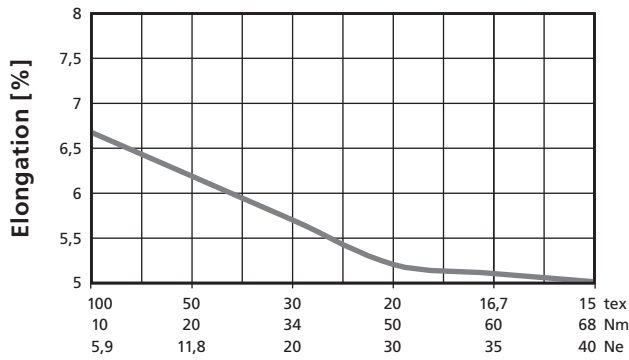
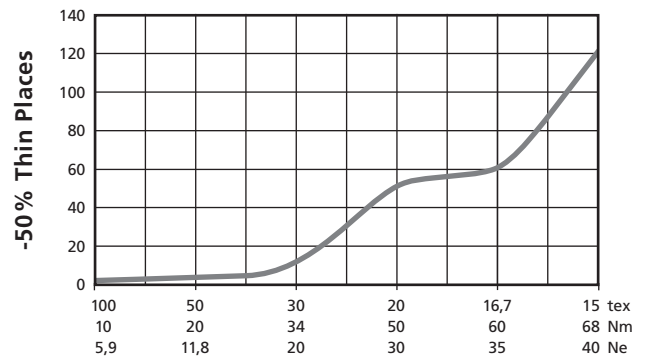
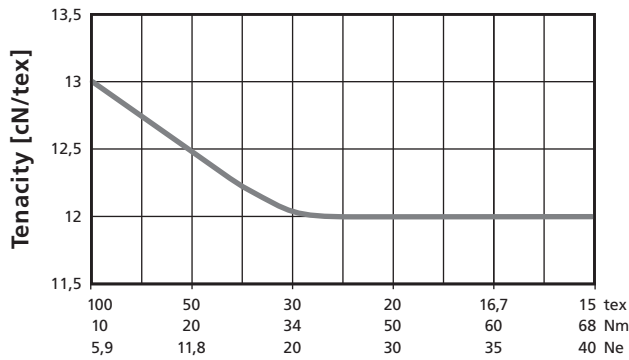


Twist Coefficient



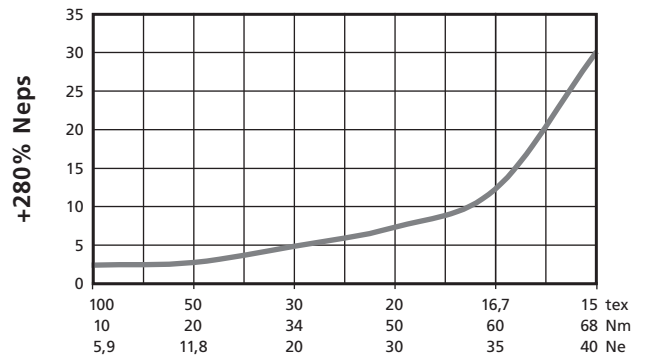
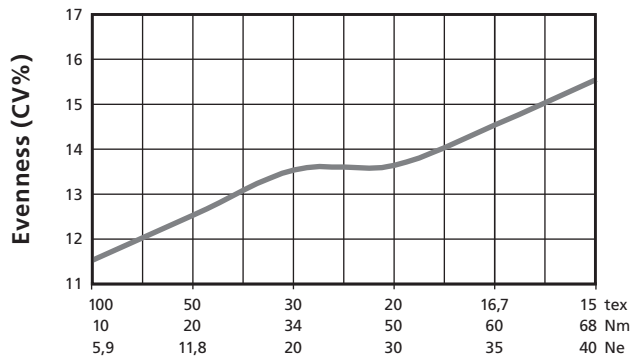
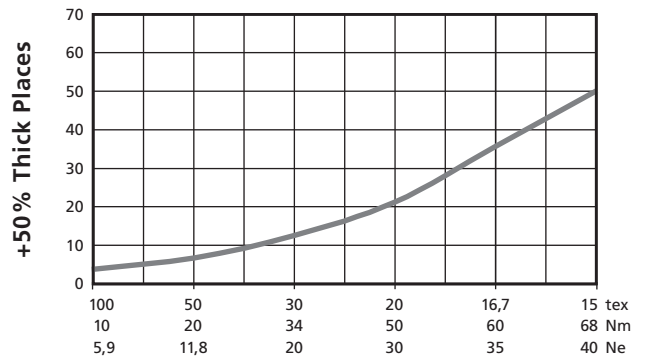
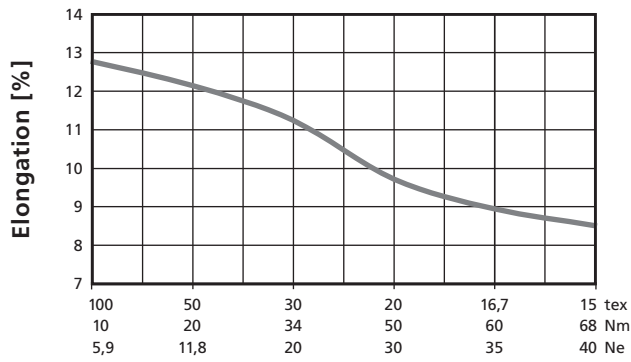
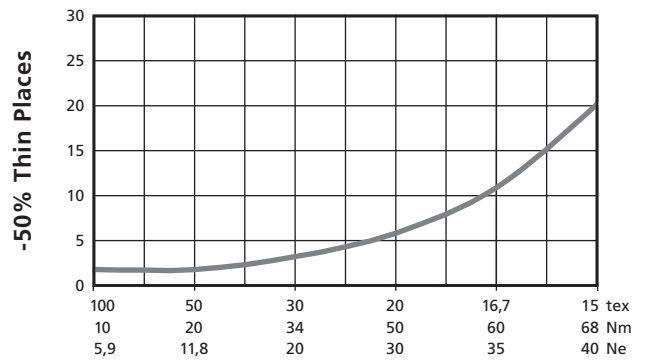
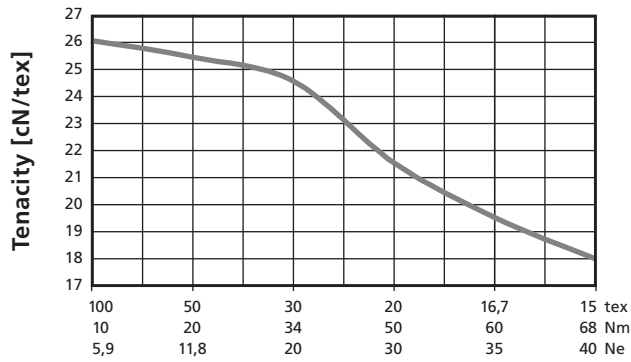
Belcoro Quality Standards for Weaving Yarns

100 % Cotton



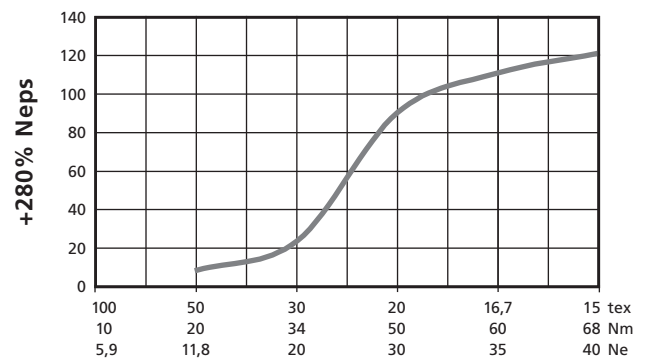
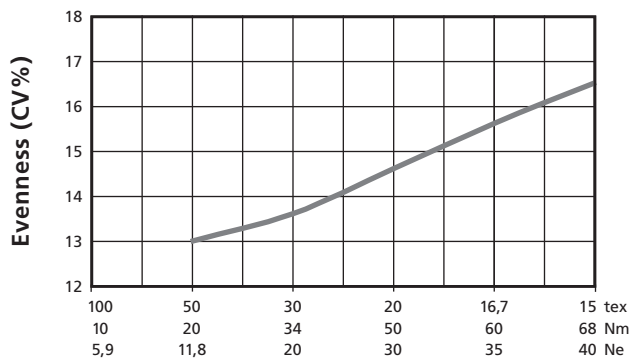
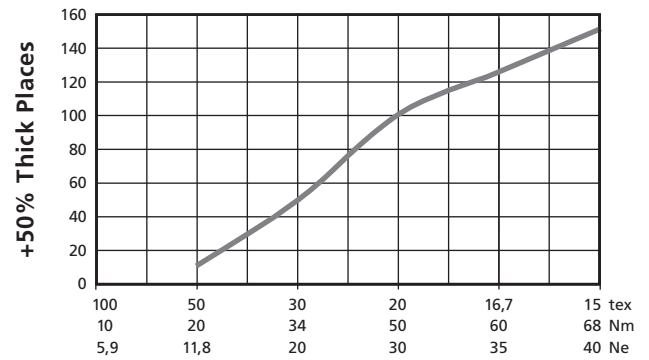
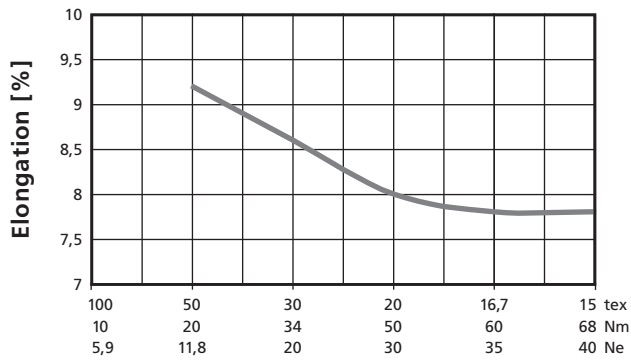
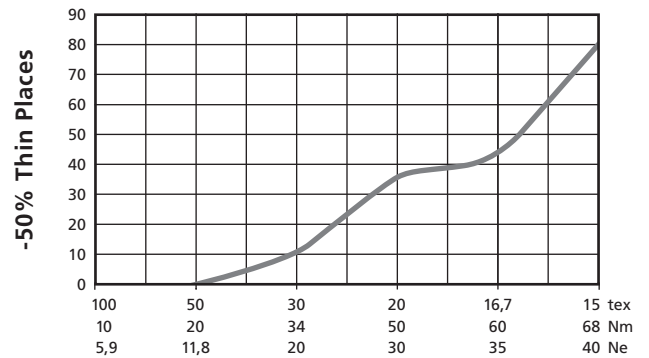
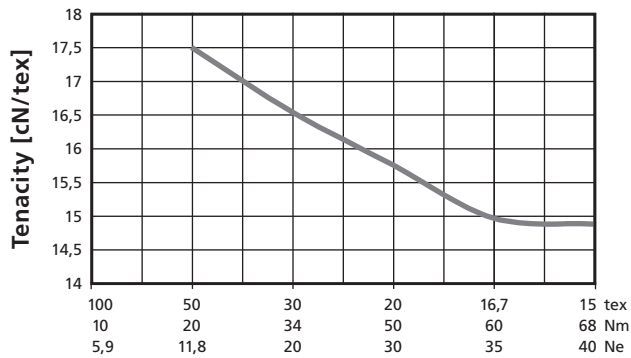
Belcoro Quality Standards for Weaving Yarns

100 % Polyester



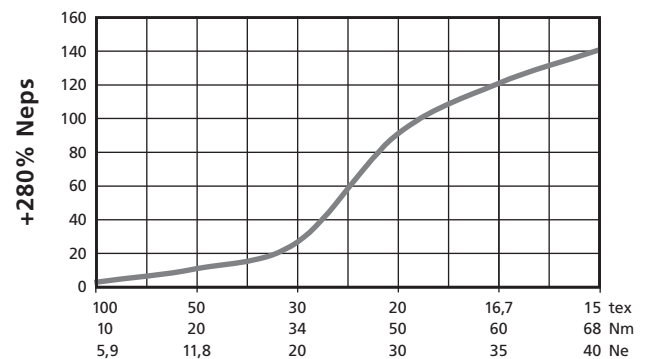
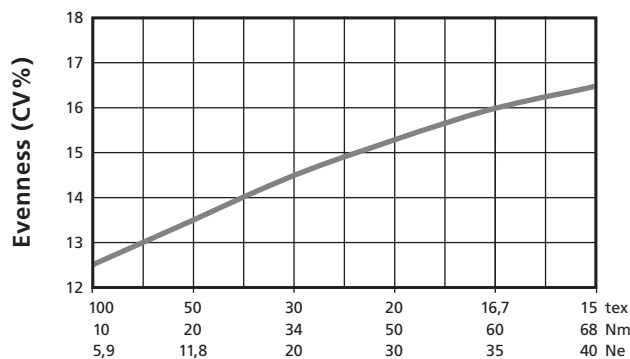
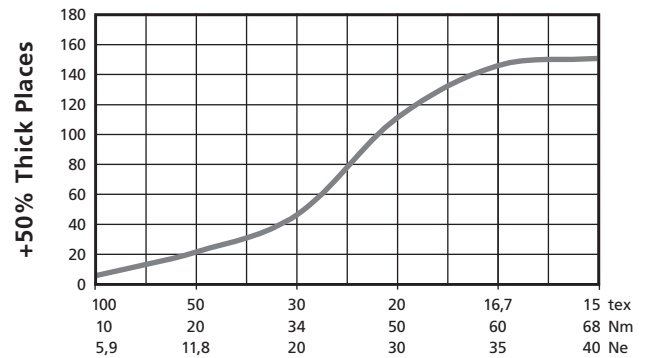
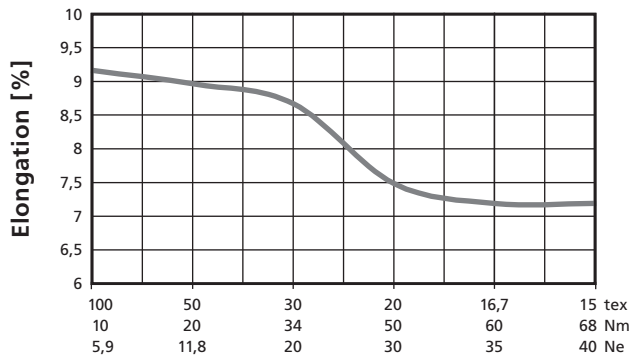
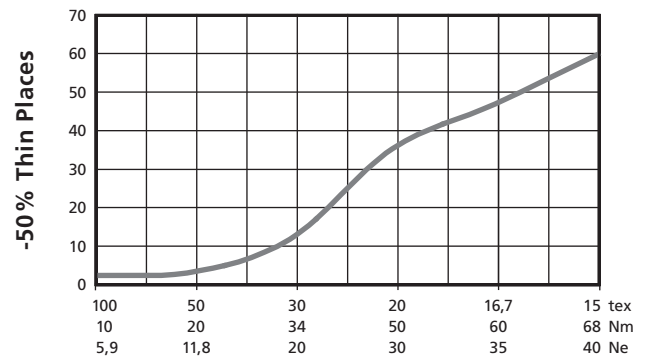
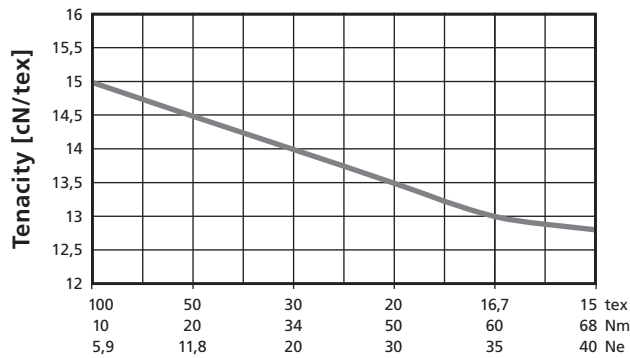
Belcoro Quality Standards for Weaving Yarns

67 % Polyester / 33 % Cotton



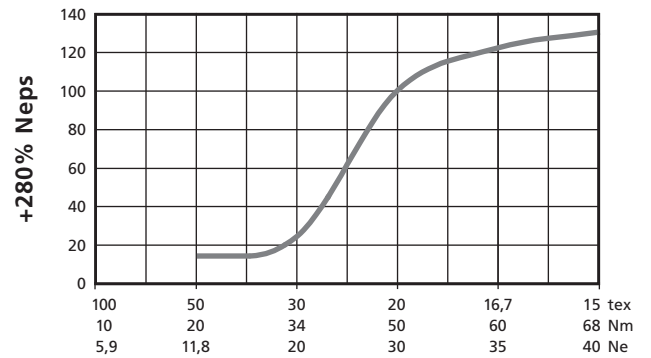
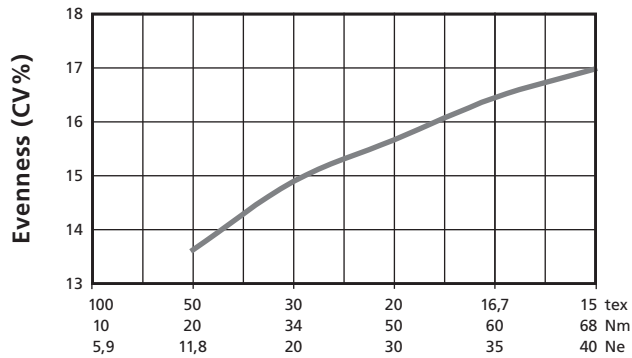
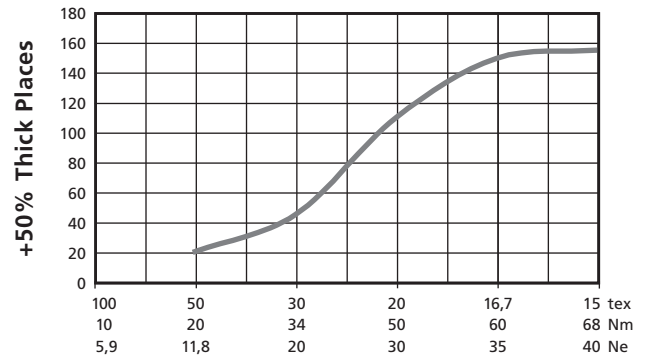
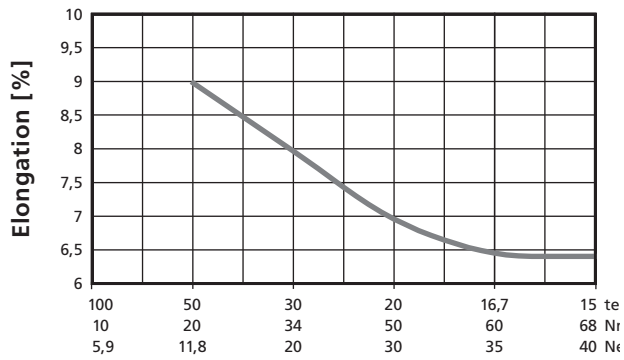
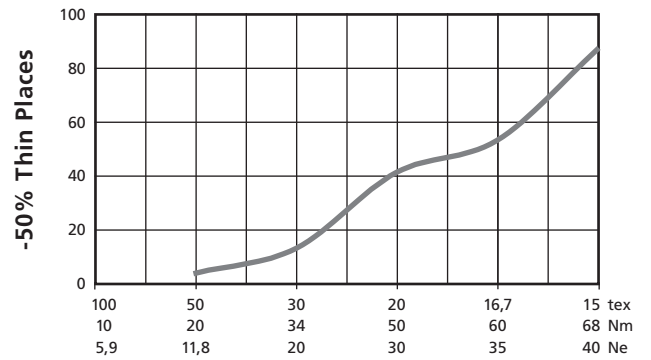
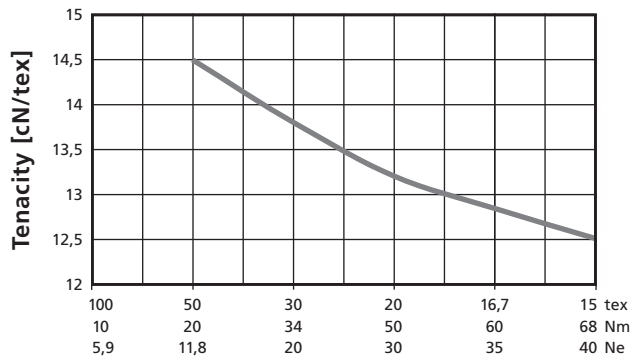
Belcoro Quality Standards for Weaving Yarns

50 % Polyester / 50 % Cotton



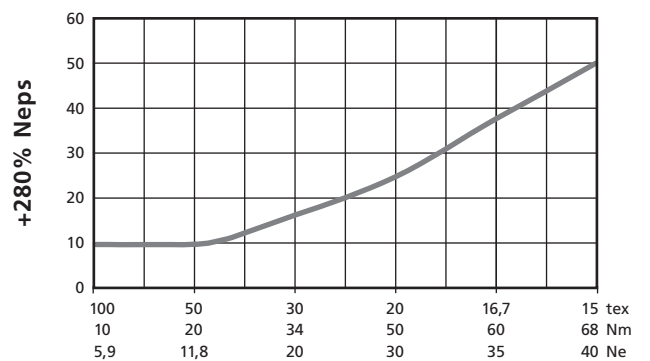
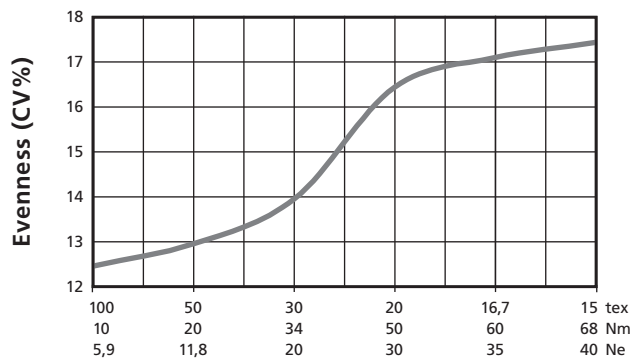
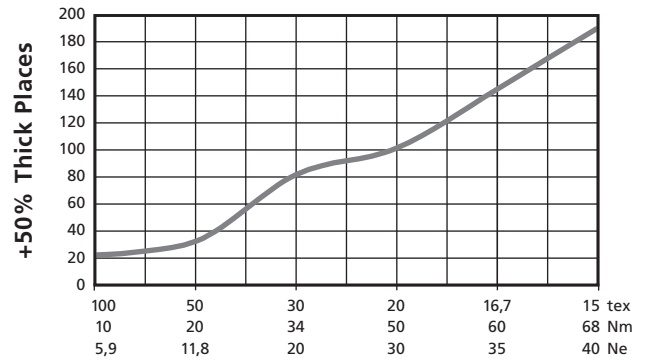
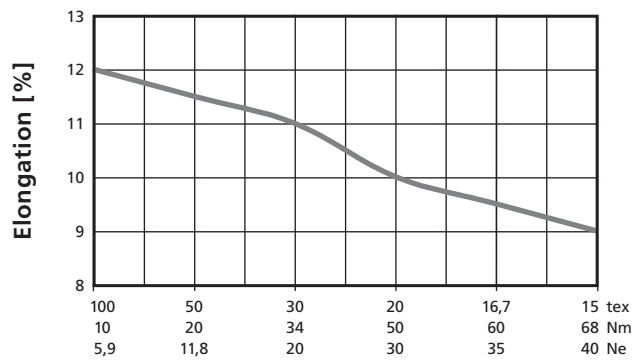
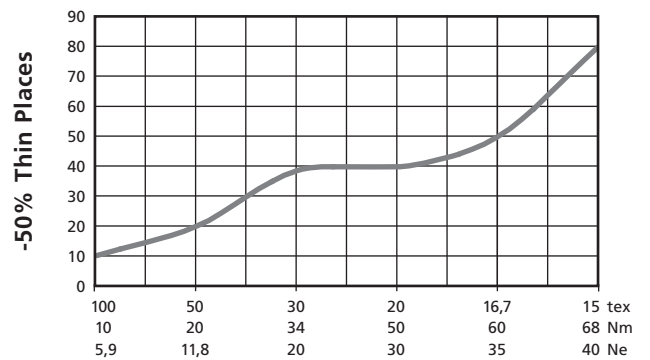
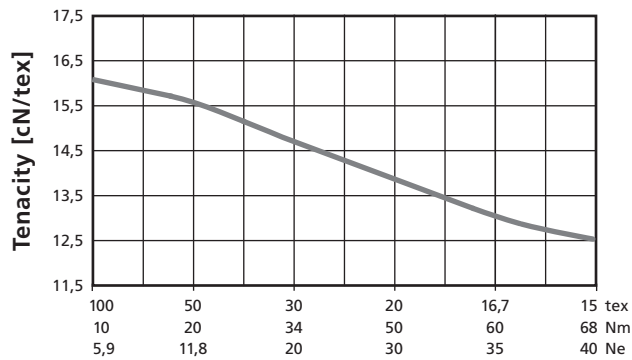
Belcoro Quality Standards for Weaving Yarns

33 % Polyester / 67 % Cotton



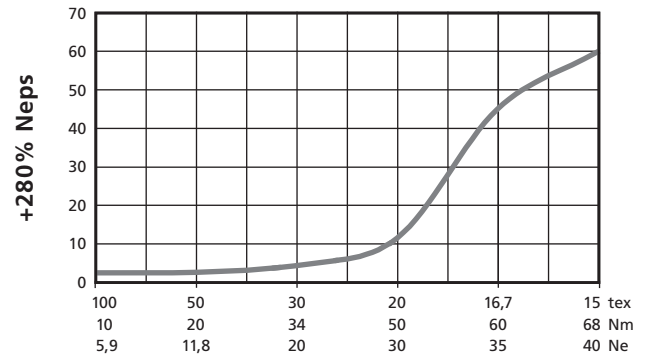
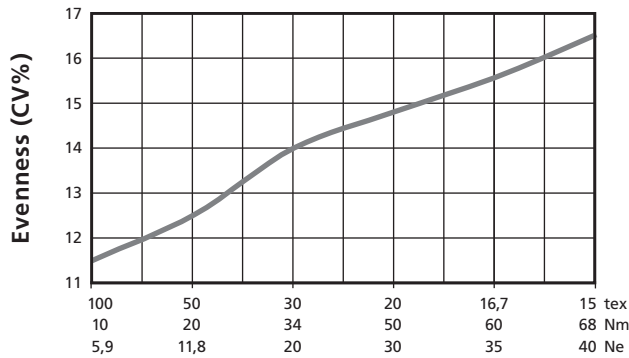
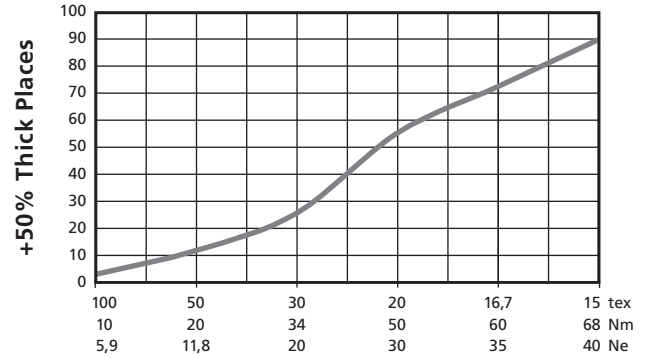
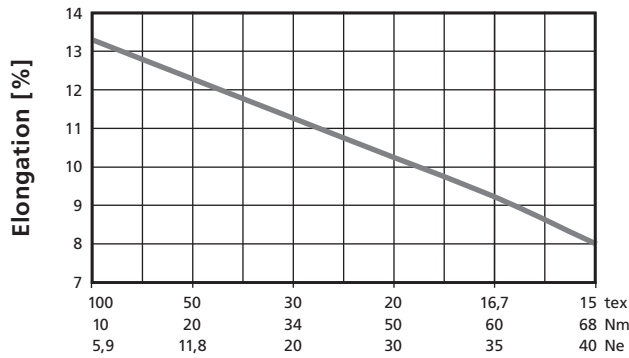
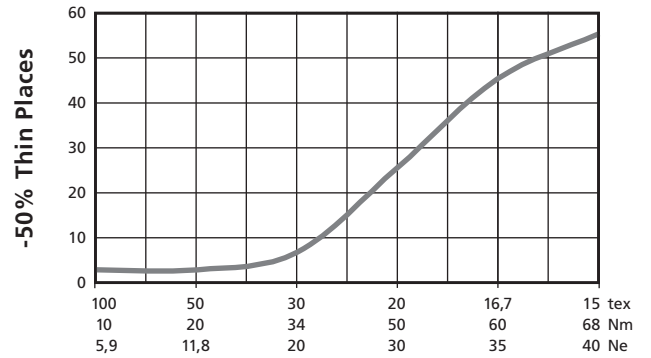
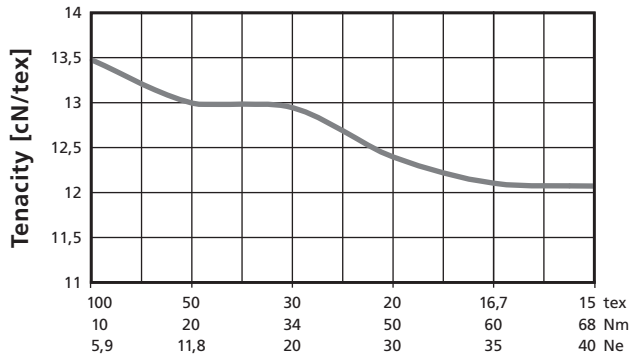
Belcoro Quality Standards for Weaving Yarns

65 % Polyester / 35 % Viscose



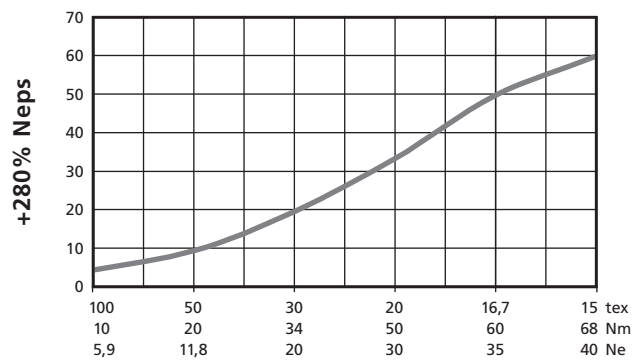
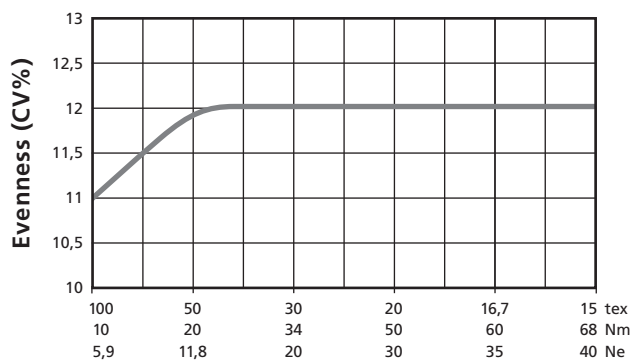
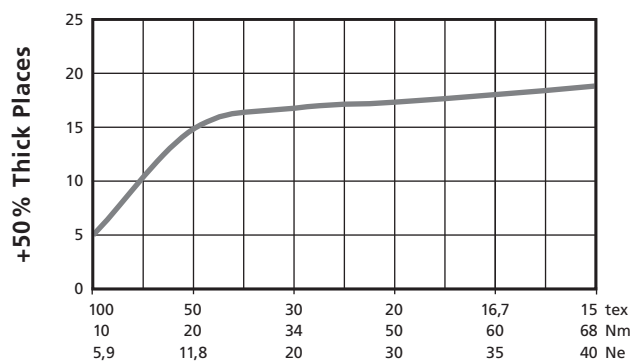
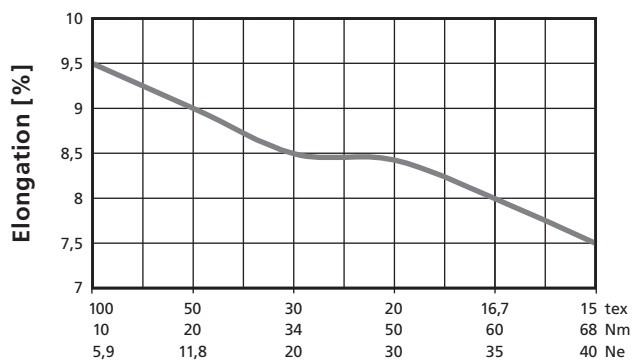
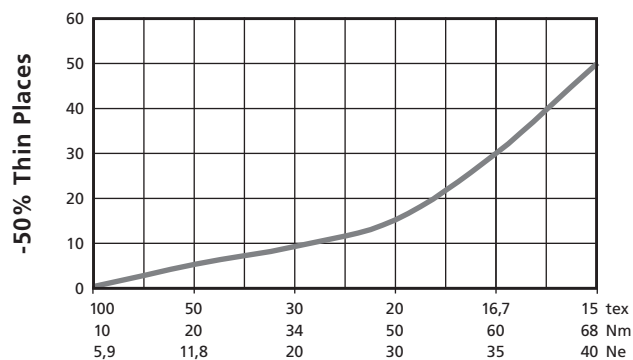
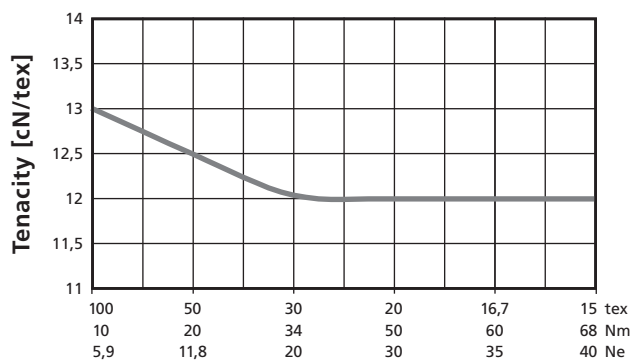
Belcoro Quality Standards for Weaving Yarns

100 % Viscose



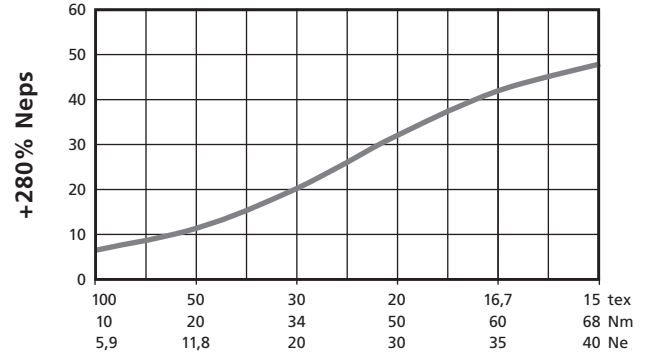
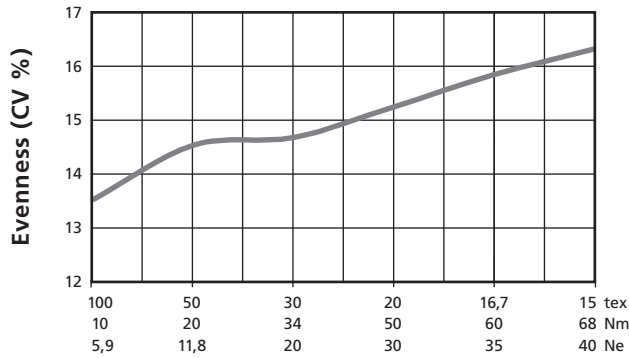
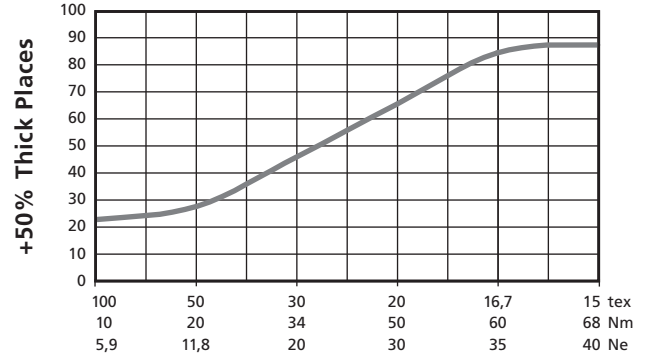
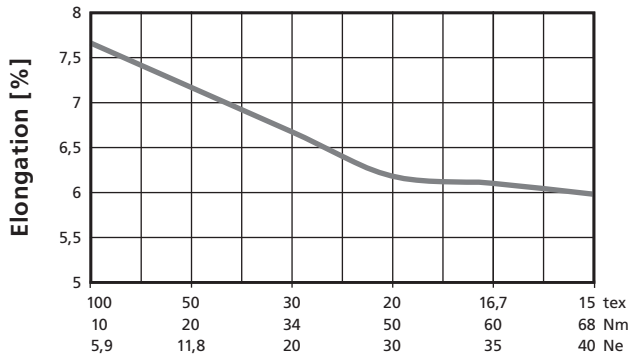
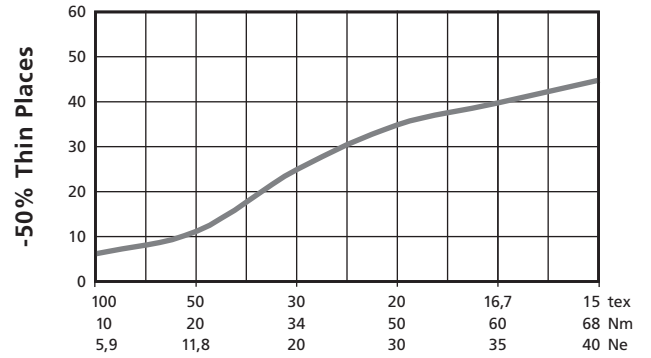
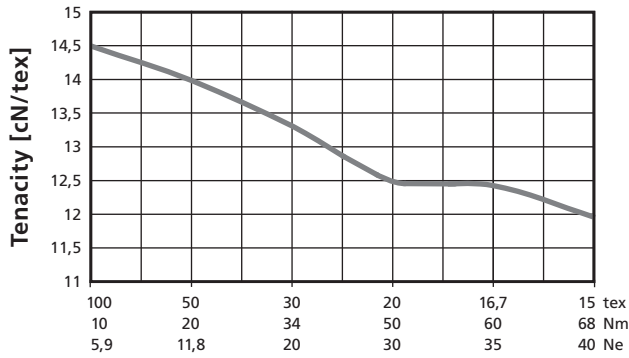
Belcoro Quality Standards for Weaving Yarns

65 % Viscose / 35 % Cotton



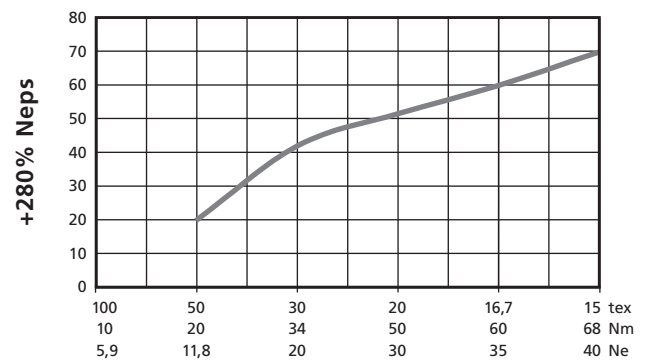
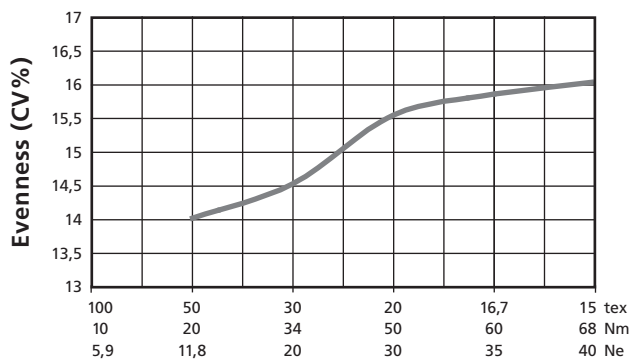
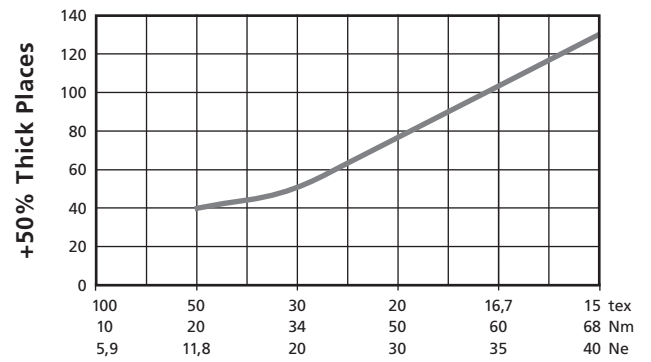
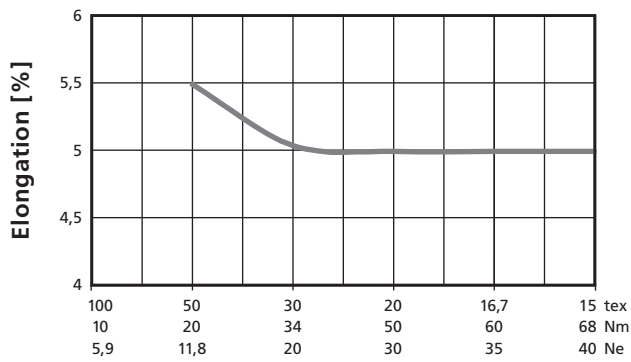
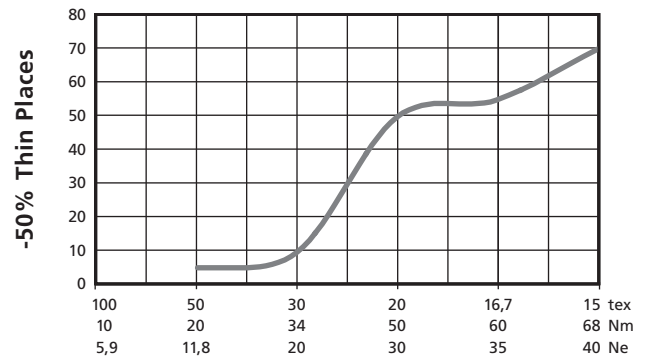
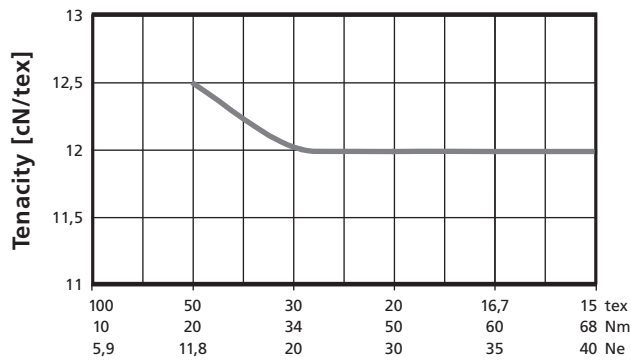
Belcoro Quality Standards for Weaving Yarns

100 % Modal



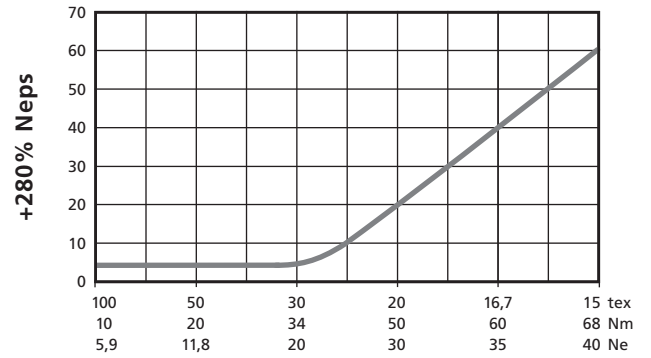
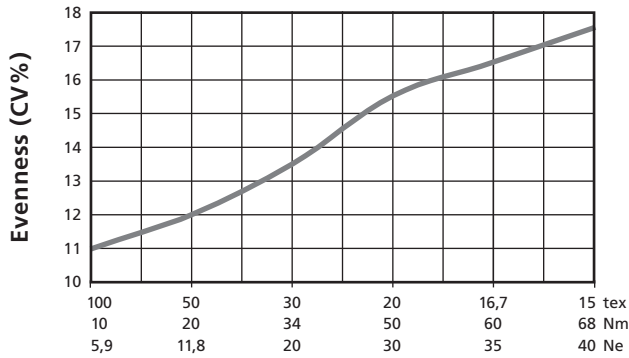
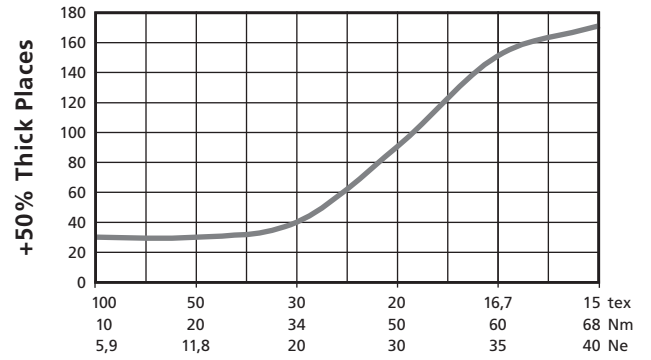
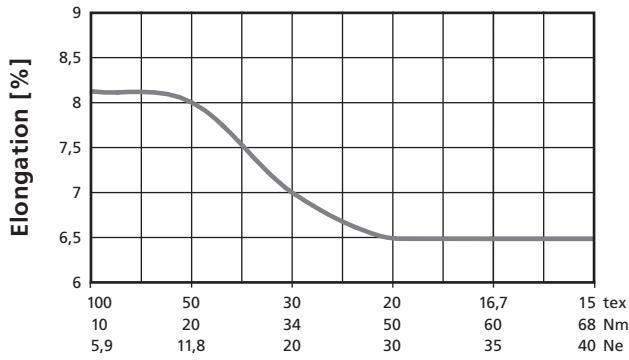
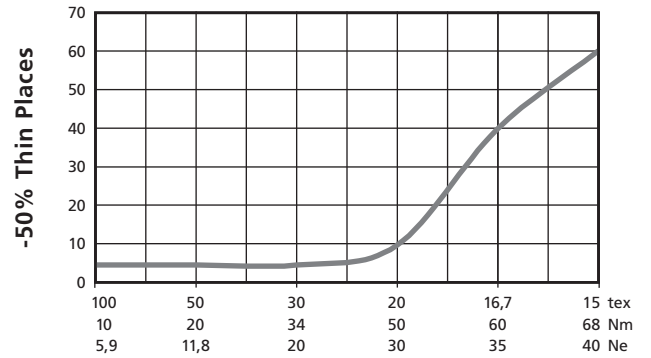
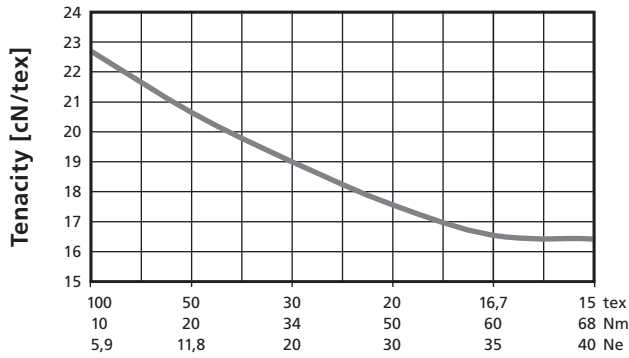
Belcoro Quality Standards for Weaving Yarns

50 % Modal / 50 % Cotton



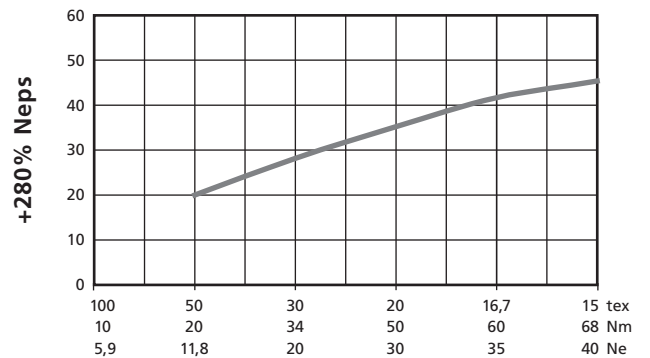
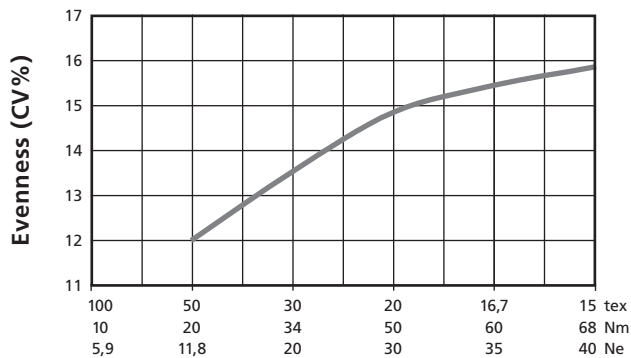
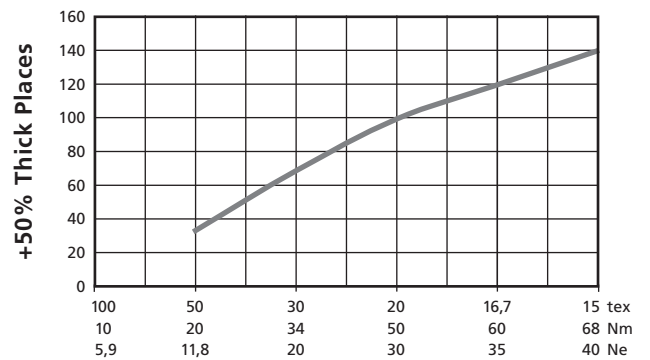
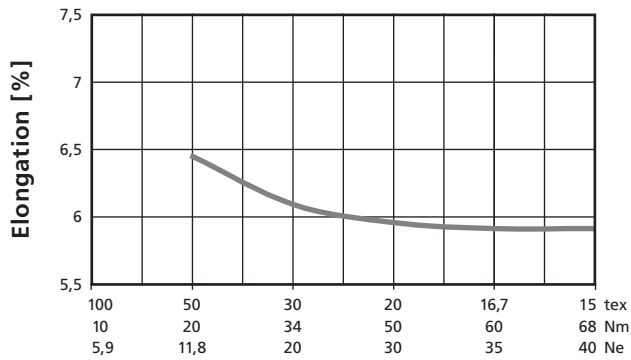
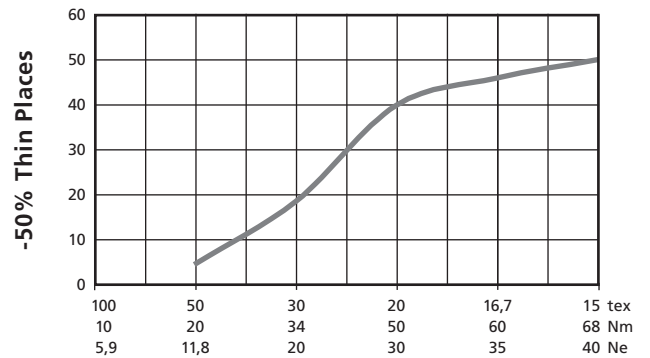
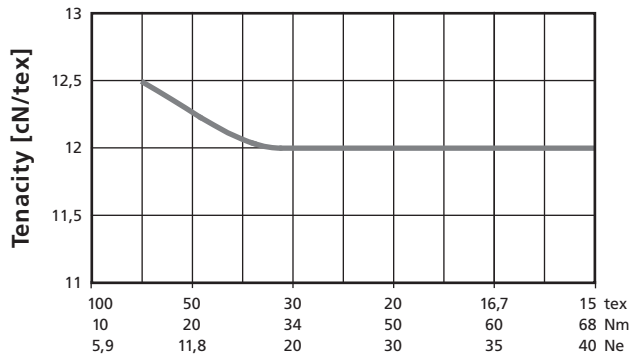
Belcoro Quality Standards for Weaving Yarns

100 % Lyocell



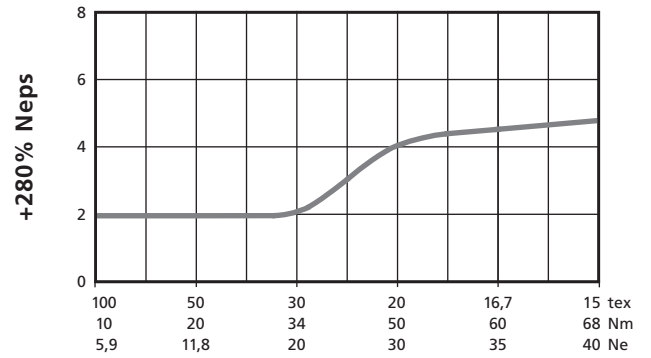
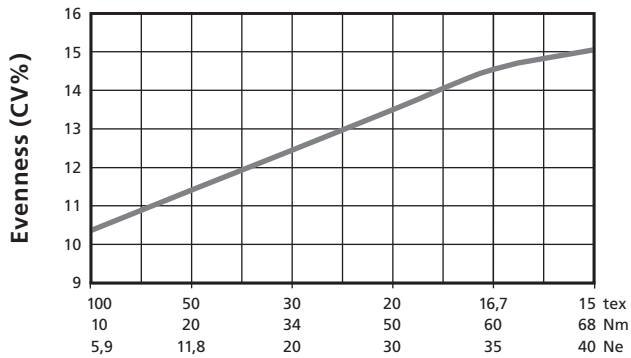
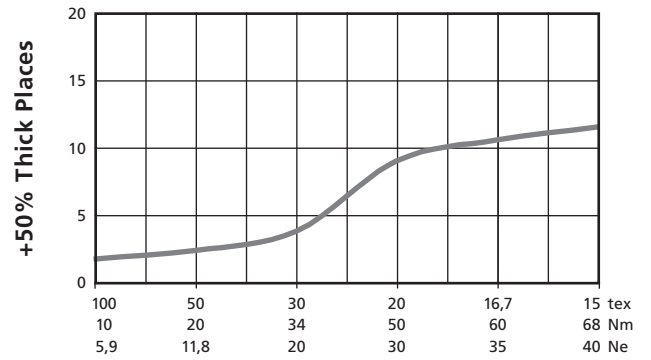
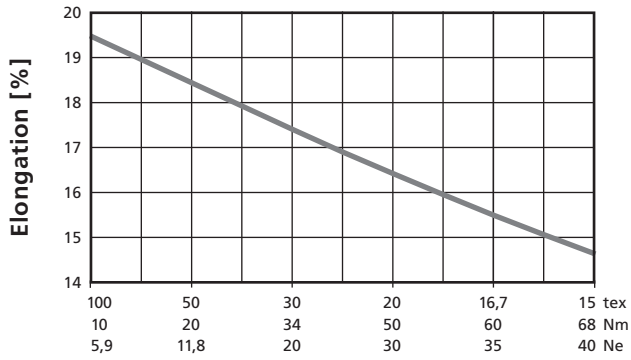
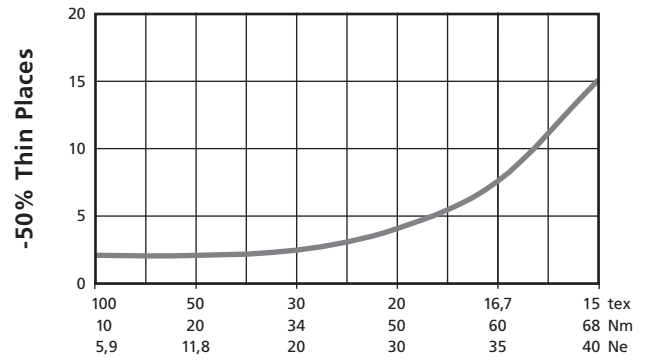
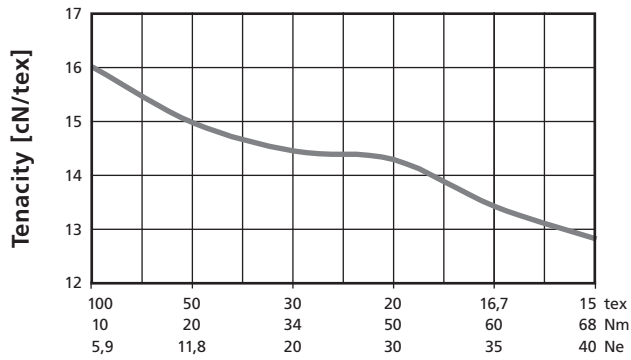
Belcoro Quality Standards for Weaving Yarns

50 % Lyocell / 50 % Cotton



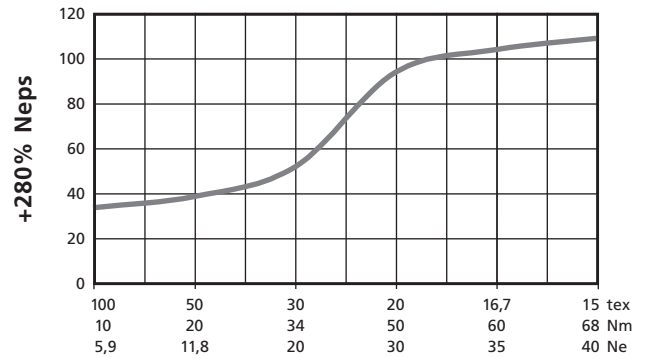
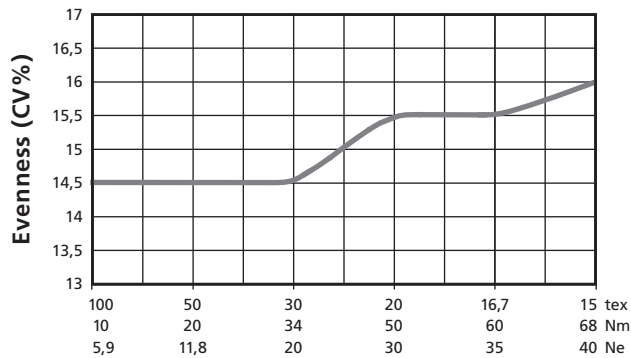
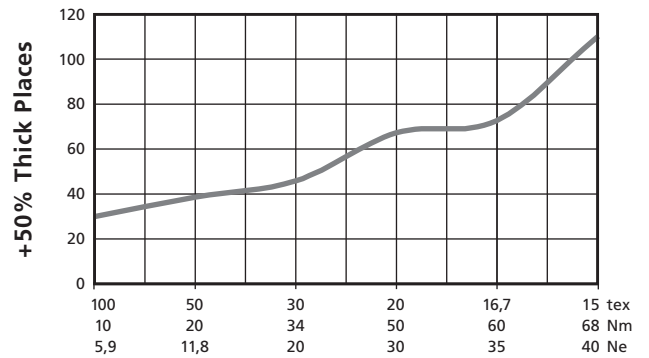
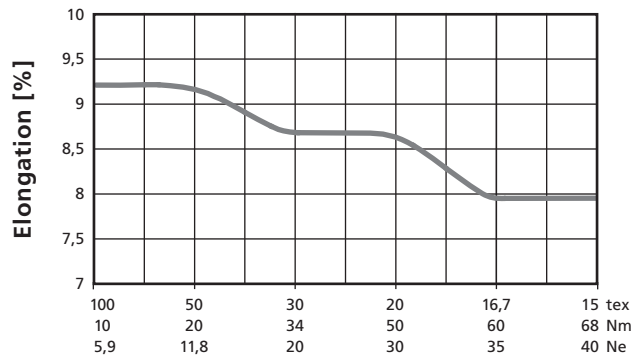
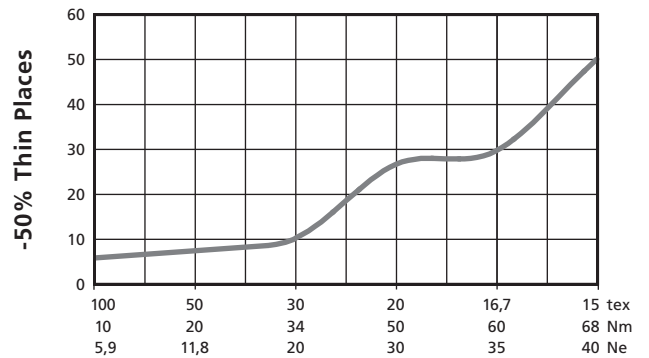
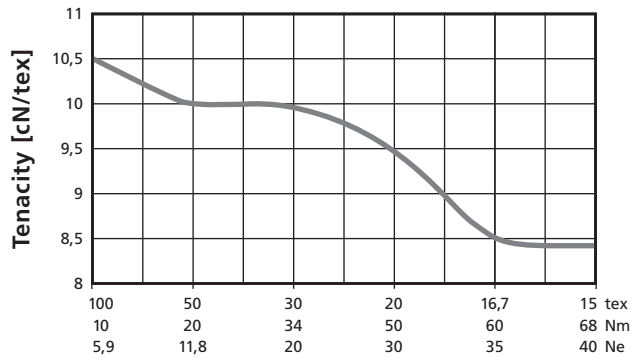
Belcoro Quality Standards for Weaving Yarns

100 % Polyacryl



Belcoro Quality Standards for Weaving Yarns

50 % Polyacryl / 50 % Cotton



Belcoro Quality Standards for Fabrics

Test criterion	Test method	Product group				
		Suits/ Trousers	Jacket/ Skirt/Dress	Blouse/ Shirt	Pullover/ T-Shirt	Underwear/ Sportswear
Colour fastness; acid perspiration – Staining	DIN EN ISO 105-E04 5.8	3–4	4	4	4	4
Colour fastness; acid perspiration – Colour change	DIN EN ISO 105-E04 5.8	3–4	4	4	4	4
Colour fastness; alcali perspiration – Staining	DIN EN ISO 105-E04 5.8	3–4	4	4	3–4	4
Colour fastness; alcali perspiration – Colour change	DIN EN ISO 105-E04 5.8	3–4	4	4	3–4	4
Colour fastness; washing according to care symbolism – Staining	ISO 105-C06 5.8	3–4	3–4	3–4	3–4	3–4
Colour fastness; washing according to care symbolism – Colour change	ISO 105-C06 5.8	3–4	3–4	3–4	3–4	3–4
Colour fastness; dry crocking resistance	ISO 105-X12 5.8	4	4	4	3–4	4
Colour fastness; wet crocking resistance	ISO 105-X12 5.8	3–4	3–4	3–4	3–4	3–4
Dimensional changes; washing [%]	DIN EN 25077 DIN EN ISO 6330 DIN EN ISO 3759 5.7	3.0	3.0	3.0	6.0	6.0
Abrasion behaviours; according Martindale	DIN EN ISO 12947-T02 5.9	30,000	20,000	20,000	–	–
Pilling behaviours; according Martindale, visual standards EMPA SN198525	DIN EN ISO 12945-T02	4	4	4	3	3
Evaluation of Pilling, surface, touch behaviours after the first washing process	no international standards	–	–	–	–	–
Water absorption after the first washing process [%]	DIN 53923	–	–	–	–	–
Breaking Strength, Strip Method [N]	DIN EN ISO 13934-T01	–	–	–	–	–

* Chapter of the Catalogue of Services

Belcoro Quality Standards for Fabrics

Test criterion	Test method	Product group					
		Socks/ Stockings	Wool/ Article	Work Wear	Bed Linen	Terries	Denim
Colour fastness; acid perspiration – Staining	DIN EN ISO 105-E04 5.8	3–4	3–4	4	4	4	3–4
Colour fastness; acid perspiration – Colour change	DIN EN ISO 105-E04 5.8	3–4	3–4	4	4	4	3–4
Colour fastness; alcali perspiration – Staining	DIN EN ISO 105-E04 5.8	3–4	3–4	4	4	4	3–4
Colour fastness; alcali perspiration – Colour change	DIN EN ISO 105-E04 5.8	3–4	3–4	4	4	4	3–4
Colour fastness; washing according to care symbolism – Staining	ISO 105-C06 5.8	3–4	3–4	4	3–4	4	3–4
Colour fastness; washing according to care symbolism – Colour change	ISO 105-C06 5.8	3–4	3–4	4	3–4	4	3–4
Colour fastness; dry crocking resistance	ISO 105-X12 5.8	3–4	3–4	4	4	4	3–4
Colour fastness; wet crocking resistance	ISO 105-X12 5.8	3–4	3–4	4	3–4	3–4	–
Dimensional changes; washing [%]	DIN EN 25077 DIN EN ISO 6330 DIN EN ISO 3759 5.7	6.0	6.0	2.5	5.0	7.0	3.0
Abrasion behaviours; according Martindale	DIN EN ISO 12947-T02 5.9	–	–	35,000	20,000	–	30,000
Pilling behaviours; according Martindale, visual standards EMPA SN198525	DIN EN ISO 12945-T02	3	–	4	4	–	4
Evaluation of Pilling, surface, touch behaviours after the first washing process	no international standards	–	–	No pills, no light spots, clear sur- face soft touch	–	No pills, no light spots, clear sur- face soft touch	–
Water absorption after the first washing process [%]	DIN 53923	–	–	–	–	200.0	–
Breaking Strength, Strip Method [N]	DIN EN ISO 13934-T01	–	–	200.0	–	–	–

* Chapter of the Catalogue of Services

Oerlikon Schlafhorst

Zweigniederlassung der
Oerlikon Textile GmbH & Co. KG
Blumenberger Strasse 143-145
41061 Mönchengladbach
Germany

Phone: +49 2161 28 0

Fax: +49 2161 28 3541

Internet: www.schlafhorst.oerlikontextile.com
www.belcoro.com

E-Mail: belcoro@schlafhorst.de