



Milliken Floorcovering Proposal  
Nordic Stories  
Comfort Plus

*Milliken*

# What is Milliken Cushion Backing

Milliken's cushion backing with 90% recycled content provides very tangible health and wellness benefits. By offering a more comfortable surface to stand or walk on, it reduces fatigue and through its acoustic properties, it reduces noise levels which can in turn positively impact stress levels.

Cushion back carpets will also last 40 to 50% longer than hardback carpets as the cushion backing absorbs the effects of wear and protects the face of the carpet. Cushion backing also offers installation, ergonomic, safety and environmental benefits.

Milliken's cushion backing is offered in two thicknesses:

- **Comfort Plus**™ – for the ultimate in luxurious premium comfort and superior acoustic performance.
- **Comfort Lite** – for enhanced underfoot comfort, acoustic and wear performance.

## Cushion Backing with 90% recycled content

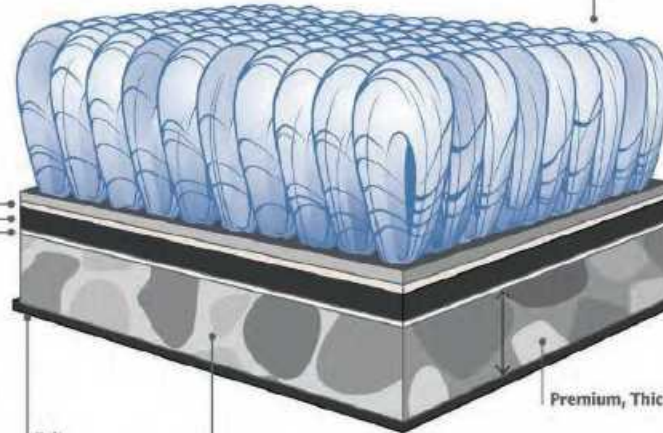
**Cross Section:**  
Milliken Cushion Back Carpet Tile.

**Nylon 6 or 6:6 Yarn**  
Constructed for optimum wear performance and appearance retention. Collections featuring up to 100% recycled content are available.

**Latex**  
To provide tuft bind

**Amber™**  
Adhesive layer to attach the carpet and cushion backing system

**Glass**  
For dimensional stability



**Primary Backing**  
Featuring up to 90% recycled content including post-consumer PET bottles.

**Premium, Thicker Cushion**

**Felt**  
For clean uplift and ease of reuse.

**Recycled Cushion**  
Featuring open cell polyurethane to provide underfoot comfort, improve acoustics and enhance appearance retention. Features 90% recycled, post industrial content.

**Comfort Lite**  
Cushion Back Carpet Tile



**Reduced Thickness Cushion**

## Cushion Backing: Improves Acoustics

In open-office environments, with teams of people all talking at once, noise can be disturbing and frustrating. In such environments, the acoustic advantages of cushion backing are impressive.

Spaces fitted with Milliken cushion-backed carpet tiles will be noticeably quieter than with any hardback product. Cushion backing reduces impact noise (e.g. from foot traffic) and absorbs ambient sound (e.g. from nearby conversations) making spaces feel calmer and less frenetic. Improvements in workplace acoustics can yield higher performance and increase productivity, making it easier to both concentrate and collaborate.

The acoustic properties provided by cushion backing are also beneficial in educational environments, making it easier for students and teachers to hear, communicate and concentrate. Numerous studies have shown that reduced noise levels improve knowledge retention and reduce error rates among students and minimise vocal cord strain for teachers.

**Milliken Cushion Backing  
absorbs up to**

# 50%

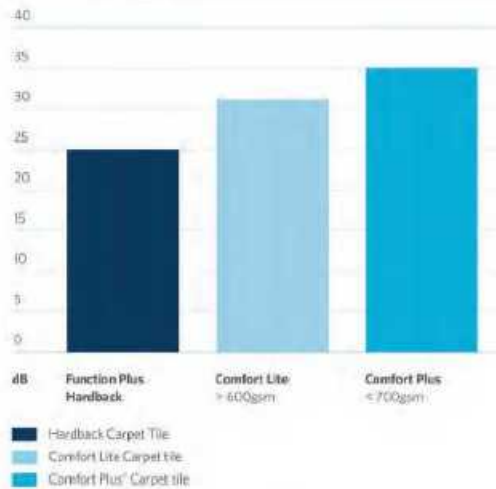
**more noise than hardback**

**Here's how it works:** Cushion addresses two aspects of sound in the working environment:

### 1. It improves the ability of the carpet to reduce impact noise

Impact noise is essentially a structural vibration that occurs when one object collides with another, such as footsteps on a floor. It typically occurs in an adjacent space and is transmitted from the point of impact through a wall or floor. Noise is measured in decibels (dB).

#### Impact Noise Comparison

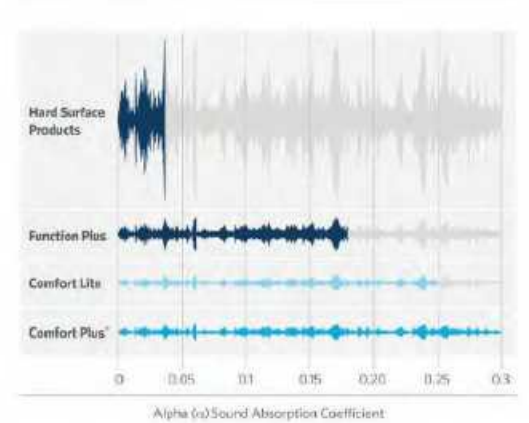


**Comfort Plus<sup>®</sup> reduces impact sound (e.g. from foot traffic) by up to 40%**

### 2. It improves the ability of the carpet to absorb ambient sound

Sound absorption refers to the carpet's ability to absorb (rather than reflect) sound waves within a space, from sources such as human speech. A material's sound absorbing properties are expressed by the sound absorption coefficient,  $\alpha$  (alpha), as a function of the frequency. Alpha ( $\alpha$ ) ranges from 0 to 1.00 (from total reflection to total absorption).

#### Sound Absorption Comparison



**Comfort Plus<sup>®</sup> absorbs up to 50% more noise than hard-backed tiles and up to 12 x more than hard surface products**

## Cushion Backing: Improves Underfoot Comfort

Cushion backing has a huge impact on comfort and fatigue. At the end of the day employees in offices with carpet tiles with cushion backing will notice a big difference in the way their knees, feet, back and ankles feel. The cumulative benefit over weeks and months can have a big impact on overall health.

The benefits go beyond just physical health. An investment in Milliken cushion backed carpet can provide dividends in the form of increased productivity and improved morale. In retail and hospitality environments where comfort is a vital part of the overall customer experience, Milliken cushion backing helps create a more relaxing and luxurious environment where guests will feel more at home and want to linger longer.

**Here's how it works.** The open cell cushioning used in Milliken's cushion backing features the same type of technology found in high-performance athletic shoes. With greater underfoot support, Milliken cushion backing significantly reduces leg muscle fatigue – often by as much as 24%.

As height adjustable desks become the norm, the ergonomic benefits of cushion backing are amplified. In sit-stand working spaces, comfort whilst both standing and sitting are of equal concern and Milliken's cushion backing systems tick all the ergonomic boxes.

Cushion backing offers improved ergonomics and is particularly beneficial with sit-stand workstations

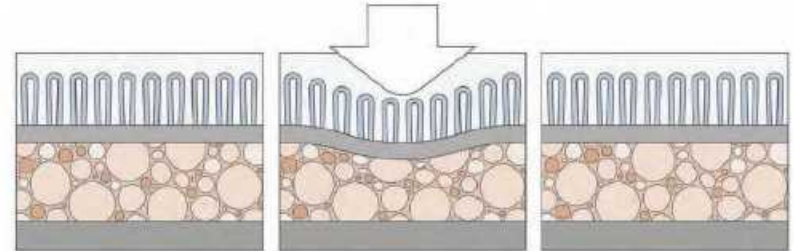


Cushion backing reduces  
leg muscle fatigue by up to

24%

## Cushion Backing: Improves Appearance Retention

In most buildings, the floor covering is the most used, and abused, interior finish. It is also usually the finish with the largest surface area and so protecting its appearance will have a significant impact on the overall long term aesthetics of the interior. Cushion backing protects the face of the carpet from the effects of traffic and wear and can extend the life of the carpet by up to 50%.



**Here's how it works.** The cushion backing acts as an insulating shock absorber, absorbing some of the impact of foot traffic, reducing wear and damage to the carpet fibre. As the face of the carpet is protected, its appearance retention is extended and the life of the carpet is increased.

Cushion backing can extend  
the carpet's life by up to

50%





## Proposed Collections Nordic Stories

- Jacobsen's Story
- Ash Blanket
- Smorgasbord
- Baltic Plain
- Norse
- Midnight Sun
- Svalbard

*Milliken*

# NORDIC STORIES

Tectonic



Construction	Tufted, Textured Loop Pile
Face Fibre	Solution Dyed Nylon 6-6 (20% recycled content)
Soil Release	StainSmart® for soil release, liquid-repellence (on light colours LRV >20)
Finished Face Weight	630 g./m <sup>2</sup>
Gauge	43.2 / 30 cm
Rows	41 / 10 cm
Tuft Density	793,700 /m <sup>2</sup>
Finished Pile Height	2.0 - 4.5 mm
Standard Backing	Comfort Plus® 90% recycled open cell polyurethane cushion backing. Available with TractorBack® on request
Nominal Total Thickness	9.0 mm
Tile Size	50 cm x 50 cm
Nominal Total Weight	2900 g./m <sup>2</sup>
Tiles per Box	20 (5m <sup>2</sup> )

<b>PERFORMANCE</b>	
Flammability (Euroclassification EN13501-1-2002)	Class BR - s1
Flammability (Radiant Panel ASTM-E-648)	Class I
Flammability (Hot Metal Nut BS4790)	Low Radius of Char
Use Classification (EN 1307)	Class 33 Heavy Commercial Use
Castor Chair (BS EN 985:2009)	Class A - Intensive use (r value ≥ 2.4)
Static Electricity (ISO 6356)	Pass a 2.0 KV Permanent Conductive Fibre
Impact Sound (ISO 10140-3)	31 db
Sound Absorption (ISO354)	0.25 (D) - Class E
Alpha s values	125Hz 0.01, 250Hz 0.06, 500Hz 0.58, 1000Hz 0.22, 2000Hz 0.28, 4000Hz 0.39

<b>ENVIRONMENTAL</b>
59% recycled content by total product weight
Manufactured in ISO14001 certified location using renewable sources
GUT & CRI Green Label Plus certified for indoor air quality
EPO verified - BRE certified

<b>WARRANTIES</b>
12 year wear warranty
Lifetime Artistic® guarantee
Likert Defects guarantee

<b>CERTIFICATIONS</b>										

<b>INSTALLATION</b>

<b>CE MARKING</b>				

Design Copyright - Milliken & Company. This cushion-back carpet tile product is covered by one or more patents, authorized applications and/or patents pending. Specifications are subject to normal manufacturing tolerances and may be changed without prior notice. Copies of actual test results are available upon request.

## Proposed Collection: Nordic Stories - Tectonic



Color: TTC06-152 Jacobsen's Story



PDF Compressor Free Version  
**Nordic Stories Tectonic**

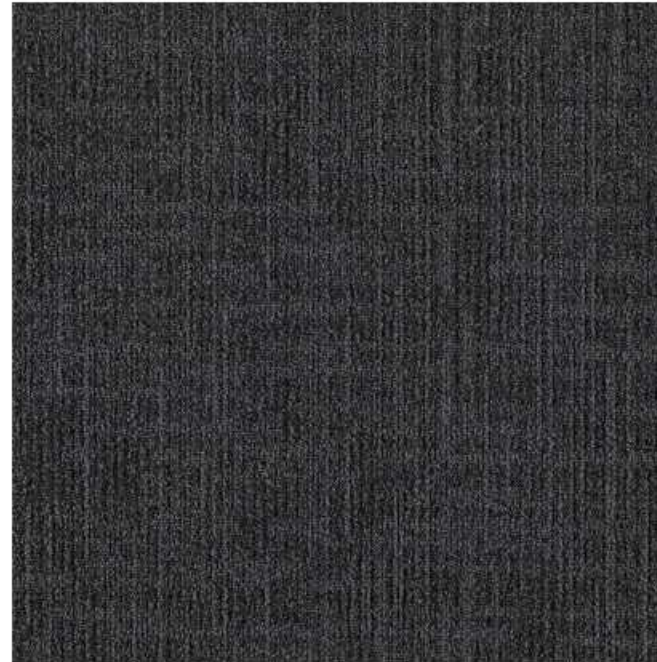


**Color: TTC06-152 Jacobsen's Story**  
**Tile Size: 50cm x 50cm - Monolithic Installation**

SPECIFICATION SHEET		Date: 31.01.2018	Revision: 3
<b>NORDIC STORIES</b>		<i>Milliken</i>	
Tectonic			
Construction	Tufted, Textured Loop Pile		
Face Fibre	Solution Dyed Nylon 6-6 (20% recycled content)		
Soil Release	StainSmart® for soil release, liquid repellence (on light colours LRV >20)		
Finished Face Weight	610 g/m <sup>2</sup>		
Gauge	47.2 / 10 cm		
Rows	41 / 10 cm		
Tuft Density	193700 /m <sup>2</sup>		
Finished Pile Height	2.0 - 4.5 mm		
Standard Backing	Comfort Plus® 90% recycled open cell polyurethane cushion backing. Available with TractiSoft™ on request.		
Nominal Total Thickness	9.0 mm		
Tile Size	50 cm x 50 cm		
Nominal Total Weight	3900 g/m <sup>2</sup>		
Tiles per Box	10 (5m <sup>2</sup> )		
PERFORMANCE			
Flammability (Euroclassification EN13501)-2002)	Class BH - sl		
Flammability (Radiant Panel ASTM-E-648)	Class 1		
Flammability (Hot Metal Nut 854790)	Low Radius of Char		
Use Classification (EN 1307)	Class 33 Heavy Commercial Use		
Castor Chair (BS EN 985:2001)	Class A - Intensive use (r value > 2.4)		
Static Electricity (ISO 6354)	Pass < 2.0 kV Permanent Conductive Fibres		
Impact Sound (ISO 10140-3)	31 dB		
Sound Absorption (ISO354)	0.25 (H) Class E		
Alpha s values	125Hz 0.01, 250Hz 0.06, 500Hz 0.18, 1000Hz 0.22, 2000Hz 0.26, 4000Hz 0.39		
ENVIRONMENTAL	WARRANTIES		
59% recycled content by total product weight	12 year wear warranty		
Manufactured in ISO14001 certified facility using renewable sources	Lifetime Aesthetic guarantee		
Gut & CRI Green Label Plus certified for indoor air quality	Latent Defects guarantee		
EPD verified - BRE certified			
CERTIFICATIONS			
			
			
INSTALLATION	CE MARKING		
			

Design Copyright - Milliken & Company. This color back carpet tile product is created by either their patents, published applications and/or patents pending. Specifications are subject to normal manufacturing tolerances and may be changed without prior notice. Copies of actual test reports are available upon request.

## Proposed Collection: Nordic Stories - Tectonic



Color: TTC119-27 Ash Blanket



PDF Compressor Free Version  
**Nordic Stories Tectonic**

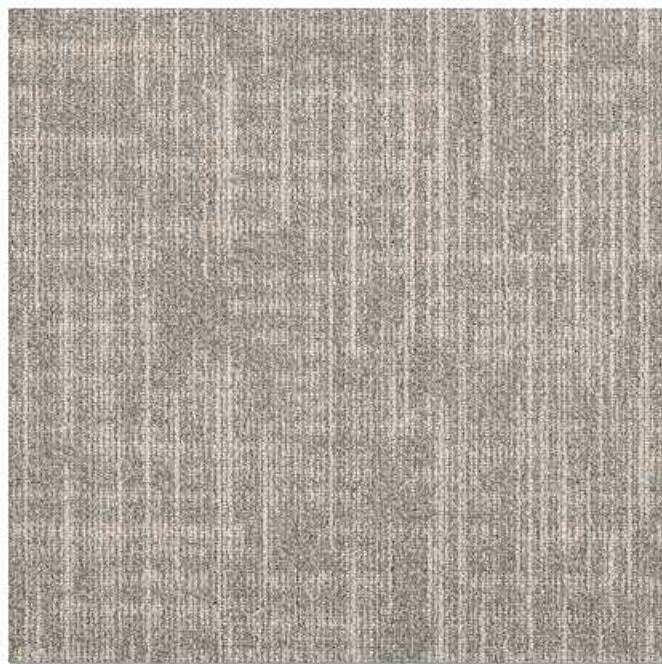


**Color: TTC119-27 Ash Blanket**  
**Tile Size: 50cm x 50cm - Monolithic Installation**

SPECIFICATION SHEET		Date: 31.01.2019 - Revision: 3
<b>NORDIC STORIES</b>		<i>Milliken</i>
Tectonic		
Construction	Tufted, Textured Loop Pile	
Face Fibre	Sulazone Dyed Nylon 6-6 (20% recycled content)	
Soil Release	StainSmart® for soil release, liquid repellent (on light colours LTV 120)	
Finished Face Weight	610 g/m <sup>2</sup>	
Gauge	42.2 / 10 cm	
Rows	41 / 10 cm	
Tuft Density	192,000 /m <sup>2</sup>	
Finished Pile Height	2.0 - 4.5 mm	
Standard Backing	Comfort Plus® 90% recycled open-cell polyurethane cushion backing Available with TractonBack® on request	
Nominal Total Thickness	9.0 mm	
Tile Size	50 cm x 50 cm	
Nominal Total Weight	3500 g/m <sup>2</sup>	
Tiles per Box	20 (Gm <sup>2</sup> )	
PERFORMANCE		
Flammability (Euroclassification EN13501-1-2002)	Class Bfl-s1	
Flammability (Radiant Panel ASTM-E-648)	Class 1	
Flammability (Hot Metal Nus BS4790)	Low Radius of Char	
Use Classification (EN 1307)	Class 33 Heavy Commercial Use	
Castor Chair (BS EN 985-2001)	Class A - Intensive use (γ value = 2.4)	
Static Electricity (ISO 6356)	Pass # 2.0 KV Permanent Conductive Fibre	
Impact Sound (ISO 10140-3)	31 dB	
Sound Absorption (ISO354)	0.25 (HY Class E)	
Alpha s values	125Hz 0.01, 250Hz 0.06, 500Hz 0.58, 1000Hz 0.22, 2000Hz 0.28, 4000Hz 0.39	
ENVIRONMENTAL	WARRANTIES	
59% recycled content by total product weight	12 year wear warranty	
Manufactured in ISO14001 certified location using renewable sources	Lifetime Antistatic guarantee	
GuT & CRI Green Label Plus certified for indoor air quality	Latent Defects guarantee	
EPD verified - BRE certified		
CERTIFICATIONS		
INSTALLATION	CE MARKING	

Design Copyright - Milliken & Company. This online sheet depicts the product as shown in these photos, published applications and/or patterns pending. Specifications are subject to normal manufacturing tolerances and may be changed without prior notice. Copies of actual test results are available upon request.

## Proposed Collection: Nordic Stories - Tectonic



Color: TTC121-122 Smorgasbord



PDF Compressor Free Version  
**Nordic Stories Tectonic**



**Color: TTC121-122 Smorgasbord**  
**Tile Size: 50cm x 50cm - Monolithic Installation**



**SPECIFICATION SHEET** Date: 31/01/2019 - Revision: 3

## NORDIC STORIES

Milliken

Tectonic

<b>Construction</b>	Tufted, Textured Loop Pile
<b>Face Fibre</b>	Solution Dyed Nylon 6 6 (20% recycled content)
<b>Soil Release</b>	StainSmart® for soil release, Liquid repellence (on light colours LRV >20)
<b>Finished Face Weight</b>	610 g/m <sup>2</sup>
<b>Gauge</b>	.432 / 10 cm
<b>Rows</b>	41 / 10 cm
<b>Tuft Density</b>	193,700 /m <sup>2</sup>
<b>Finished Pile Height</b>	2.0 - 4.5 mm
<b>Standard Backing</b>	Comfort Plus® 90% recycled open-cell polyurethane cushion backing Available with TractionLock® on request
<b>Nominal Total Thickness</b>	9.0 mm
<b>Tile Size</b>	50 cm x 50 cm
<b>Nominal Total Weight</b>	3500 g/m <sup>2</sup>
<b>Tiles per Box</b>	20 (3m <sup>2</sup> )

**PERFORMANCE**

<b>Flammability (Euroclassification EN13501:1-2002)</b>	Class Bfl - s1
<b>Flammability (Radiant Panel ASTM-E-648)</b>	Class 1
<b>Flammability (Hot Metal Not BS-4790)</b>	Low Radius of Char
<b>Use Classification (EN 1307)</b>	Class 33 Heavy Commercial Use
<b>Caster Chair (BS EN 988:2001)</b>	Class A - Intensive use (r value > 2.4)
<b>Static Electricity (ISO 6356)</b>	Pass > 2.0 KV Permanent Conductive Fibre
<b>Impact Sound (ISO 10140-3)</b>	31 dB
<b>Sound Absorption (ISO354)</b>	0.25 (H) Class E
<b>Alpha values</b>	125Hz 0.01, 250Hz 0.06, 500Hz 0.58, 1000Hz 0.22, 2000Hz 0.28, 4000Hz 0.39

<b>ENVIRONMENTAL</b>	<b>WARRANTIES</b>
59% recycled content by total product weight	12 year wear warranty
Manufactured in ISO14001 certified facilities using renewable sources	Lifetime Antistatic guarantee
EuT & CIB Green Label Plus certified for indoor air quality	Latent Defects guarantee
EPO verified - BRE certified	

**CERTIFICATIONS**

**INSTALLATION**

**CE MARKING**

## Proposed Collection: Nordic Stories - Tectonic



Color: TTC52-126 Baltic Plain

Design Copyright - Milliken & Company. This custom back carpet tile product is covered by one or more patents, published applications and/or patents pending. Specifications are subject to normal manufacturing tolerances and may be changed without notice. Copies of actual test results are available upon request.

PDF Compressor Free Version  
**Nordic Stories Tectonic**



**Color: TTC52-126 Baltic Plain**  
**Tile Size: 50cm x 50cm - Monolithic Installation**

SPECIFICATION SHEET Date: 31.01.2019 - Revision: 3

# NORDIC STORIES

*Milliken*

Tectonic

Construction	Tufted, Textured Loop Pile
Face Fibre	Solution Dyed Nylon 6 & 66% recycled content
Soil Release	StainSmart® for soil release, liquid repellence (on light colours UV >20)
Finished Face Weight	610 g/m <sup>2</sup>
Gauge	432 / 10 (in)
Rows	41 / 10 (in)
Tuft Density	193.700 /m <sup>2</sup>
Finished Pile Height	2.0 - 4.5 mm
Standard Backing	Combat Plus® 90% recycled open cell polyurethane cushion backing. Available with TractionBack® on request
Nominal Total Thickness	9.0 mm
Tile Size	50 cm x 50 cm
Nominal Total Weight	3900 g/m <sup>2</sup>
Tiles per Box	20 (5m <sup>2</sup> )

## PERFORMANCE

Flammability (Euroclassification EN13501-1-2002)	Class Bfl -s1
Flammability (Radiant Panel ASTM E-648)	Class 1
Flammability (Hot Metal Nut BS4790)	Low Radius of Char
Use Classification (EN 1307)	Class T3 Heavy Commercial Use
Carpet Chair (BS EN 985-2001)	Class A - Intensive use (r value ≥ 2.4)
Static Electricity (ISO 6356)	Fibre 2.0 kV Permanent Conductive Fibre
Impact Sound (ISO 10140-3)	31 dB
Sound Absorption (ISO354)	0.25 (H) Class E
Alpha's values	125Hz 0.01, 250Hz 0.06, 500Hz 0.58, 1000Hz 0.22, 2000Hz 0.28, 4000Hz 0.39

## ENVIRONMENTAL

59% recycled content by total product weight
Manufactured in ISO14001 certified location using renewable sourcing
GuT & CE Green Label Plus certified for indoor air quality
DPO verified - BRE certified

## WARRANTIES

12 year wear warranty
Lifetime Antistatic guarantee
Latent Defects guarantee

## CERTIFICATIONS



## INSTALLATION



## CE MARKING



Design Copyright - All Rights Reserved. This carpet-back carpet tile product is covered by one or more patents, published and/or pending. Specifications are subject to normal manufacturing tolerances and may be changed without prior notice. Copies of actual test results are available upon request.

# Proposed Collection: Nordic Stories - Tectonic



Color: TTC94-59 Norse



PDF Compressor Free Version  
**Nordic Stories Tectonic**



**Color: TTC94-59 Norse**  
**Tile Size: 50cm x 50cm - Monolithic Installation**

SPECIFICATION SHEET Date: 31.01.2019 Revision: 3

# NORDIC STORIES

*Milliken*

Tectonic

Construction	Tufted, Textured Loop Pile
Face Fibre	Solution Dyed Nylon 6 & 66% recycled content
Soil Release	StainGuard® for soil release, liquid repellence (on light colours UV >20)
Finished Face Weight	610 g/m <sup>2</sup>
Gauge	432 / 10 (in)
Rows	41 / 10 (in)
Tuft Density	193.700 /m <sup>2</sup>
Finished Pile Height	2.0 - 4.5 mm
Standard Backing	Combat Plus® 90% recycled open cell polyurethane cushion backing. Available with TractionBack® on request
Nominal Total Thickness	9.0 mm
Tile Size	50 cm x 50 cm
Nominal Total Weight	3900 g/m <sup>2</sup>
Tiles per Box	20 (5m <sup>2</sup> )

## PERFORMANCE

Flammability (Euroclassification EN13501-1-2002)	Class Bfl -s1
Flammability (Radiant Panel ASTM E-648)	Class 1
Flammability (Hot Metal Nut BS4790)	Low Radius of Char
Use Classification (EN 1307)	Class T3 Heavy Commercial Use
Carpet Chair (BS EN 985-2001)	Class A - Intensive use (r value ≥ 2.4)
Static Electricity (ISO 6356)	Fibre: 2.0 kV Permanent Conductive Fibre.
Impact Sound (ISO 10140-3)	31 dB
Sound Absorption (ISO354)	0.25 (H) Class E
Alpha s values	125Hz 0.01, 250Hz 0.06, 500Hz 0.58, 1000Hz 0.22, 2000Hz 0.28, 4000Hz 0.39

## ENVIRONMENTAL

59% recycled content by total product weight  
 Manufactured in ISO14001 certified location using renewable sourcing  
 GuT & CRI Green Label Plus certified for indoor air quality  
 DPO verified - BRE certified

## WARRANTIES

12 year wear warranty  
 Lifetime Antistatic guarantee  
 Latent Defects guarantee

## CERTIFICATIONS



## INSTALLATION

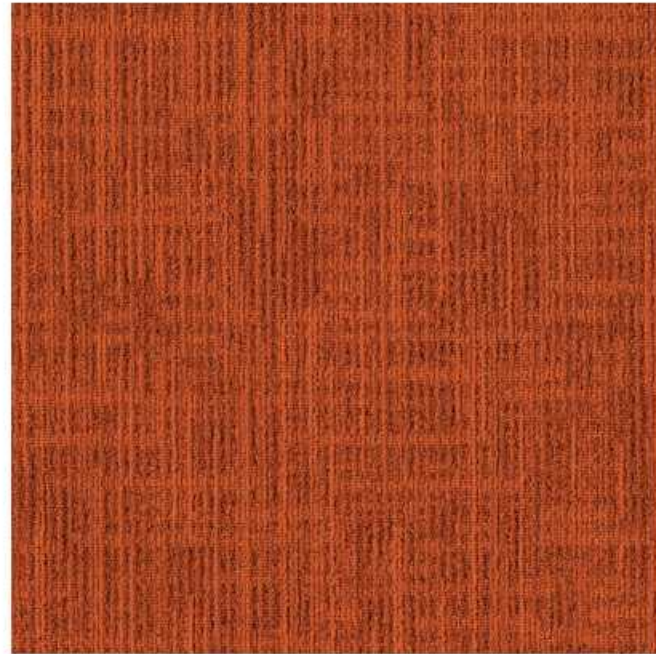


## CE MARKING



Design Copyright - All Rights Reserved. This carpet-back carpet tile product is covered by one or more patents, published applications and/or patents pending. Specifications are subject to normal manufacturing tolerances and may be changed without prior notice. Copies of actual test results are available upon request.

# Proposed Collection: Nordic Stories - Tectonic



Color: TTC102-252 Midnight Sun



PDF Compressor Free Version  
**Nordic Stories Tectonic**



**Color: TTC102-252 Midnight Sun**  
**Tile Size: 50cm x 50cm - Monolithic Installation**



SPECIFICATION SHEET Date: 31.01.2019 / Revision: 3

# NORDIC STORIES

*Milliken*

Tectonic

Construction	Tufted, Textured Loop Pile
Face Fibre	Solution Dyed Nylon 6 & 66% recycled content
Soil Release	StainSmart® for soil release, liquid repellence (on light colours UV >20)
Finished Face Weight	610 g/m <sup>2</sup>
Gauge	432 / 10 (in)
Rows	41 / 10 (in)
Tuft Density	193.700 /m <sup>2</sup>
Finished Pile Height	2.0 - 4.5 mm
Standard Backing	Combat Plus® 90% recycled open cell polyurethane cushion backing. Available with TractionBack® on request
Nominal Total Thickness	9.0 mm
Tile Size	50 cm x 50 cm
Nominal Total Weight	3900 g/m <sup>2</sup>
Tiles per Box	20 (5m <sup>2</sup> )

## PERFORMANCE

Flammability (Euroclassification EN13501-1-2002)	Class Bfl -s1
Flammability (Radiant Panel ASTM E-648)	Class 1
Flammability (Hot Metal Nut BS4790)	Low Radius of Char
Use Classification (EN 1307)	Class T3 Heavy Commercial Use
Carpet Chair (BS EN 985-2001)	Class A - Intensive use (r value ≥ 2.4)
Static Electricity (ISO 6356)	Fibre ≤ 2.0 kV Permanent Conductive Fibre
Impact Sound (ISO 10140-3)	31 dB
Sound Absorption (ISO354)	0.25 (H) Class E
Alpha's values	125Hz 0.01, 250Hz 0.06, 500Hz 0.58, 1000Hz 0.22, 2000Hz 0.28, 4000Hz 0.39

## ENVIRONMENTAL

59% recycled content by total product weight  
 Manufactured in ISO14001 certified location using renewable energy  
 GuT & CE Green Label Plus certified for indoor air quality  
 DPO verified - BRE certified

## WARRANTIES

12 year wear warranty  
 Lifetime Antistatic guarantee  
 Latent Defects guarantee

## CERTIFICATIONS



## INSTALLATION

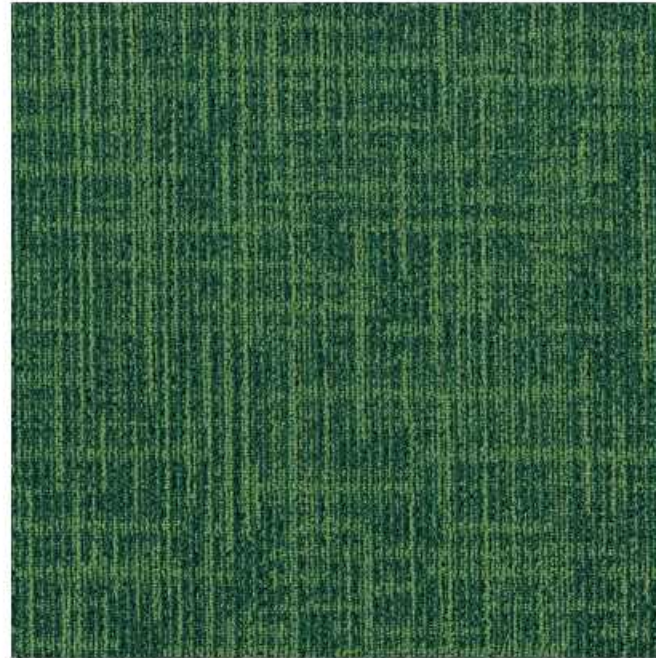


## CE MARKING



Design Copyright - All Rights Reserved. This carpet-back carpet tile product is covered by one or more patents, published applications and/or patents pending. Specifications are subject to normal manufacturing tolerances and may be changed without prior notice. Copies of actual test results are available upon request.

# Proposed Collection: Nordic Stories - Tectonic



Color: TTC141-203 Svalbard

PDF Compressor Free Version  
**Nordic Stories Tectonic**



**Color: TTC141-203 Svalbard**  
**Tile Size: 50cm x 50cm - Monolithic Installation**