

DOWN TO EARTH

Engineered for
Acoustic Excellence

Milliken™



SSSSH... OUR PRODUCTS ABSORB **SOUND** SO YOU CAN HEAR YOURSELF THINK

Unwanted noise in the workplace is a significant contributor to stress, fatigue, illness and absenteeism.

Sound is one of the 10 Concepts in the WELL Building Standard (WELL v2). A study by Cornell University* indicated that workers in open-office environments exhibited increased levels of stress hormones, which made it more likely for them to become less motivated and less creative. In fact, data shows that productivity can go down by as much as 66%**.

The right floor covering choice, for the appropriate area can create an environment where sound levels are more comfortable, boost concentration, memory and focus and increase morale and productivity.



DOWN TO EARTH / Grounded

GND235-19 Copse
GND120-261-143 Foxglove
GND212-236 Fallow

[Click on the roomscenes to view the collection on Milliken's website](#)

* Evans, G.W. & Johnson, D. (2000). Stress and open-office noise. *Journal of Psychology*, 85 (5), 779-783

** The 4 ways sound affects us, Julian Treasure, Talk at TEDGlobal 2009, July 2009

WHEN PERFORMANCE MATTERS

Milliken's cushion-backed carpet can have a powerful impact on productivity. By absorbing up to 60% more ambient sound than hard-backed tiles and up to twelve times more than hard surface products, our cushion backing makes it easier for everyone to hear, communicate and concentrate.

Milliken Cushion Backing absorbs up to

60%

more noise than hardback

Milliken cushion backing has also been shown to reduce impact sound, for example, from foot traffic in and around workspaces, by up to 40% when compared to hardback carpet. This can help make spaces feel much calmer and less frenetic.

Well-being and Floor Covering

Milliken's floor coverings offer many tangible well-being benefits in terms of approved acoustics, comfort, indoor air quality and safety, all of which enhance everyone's well-being.



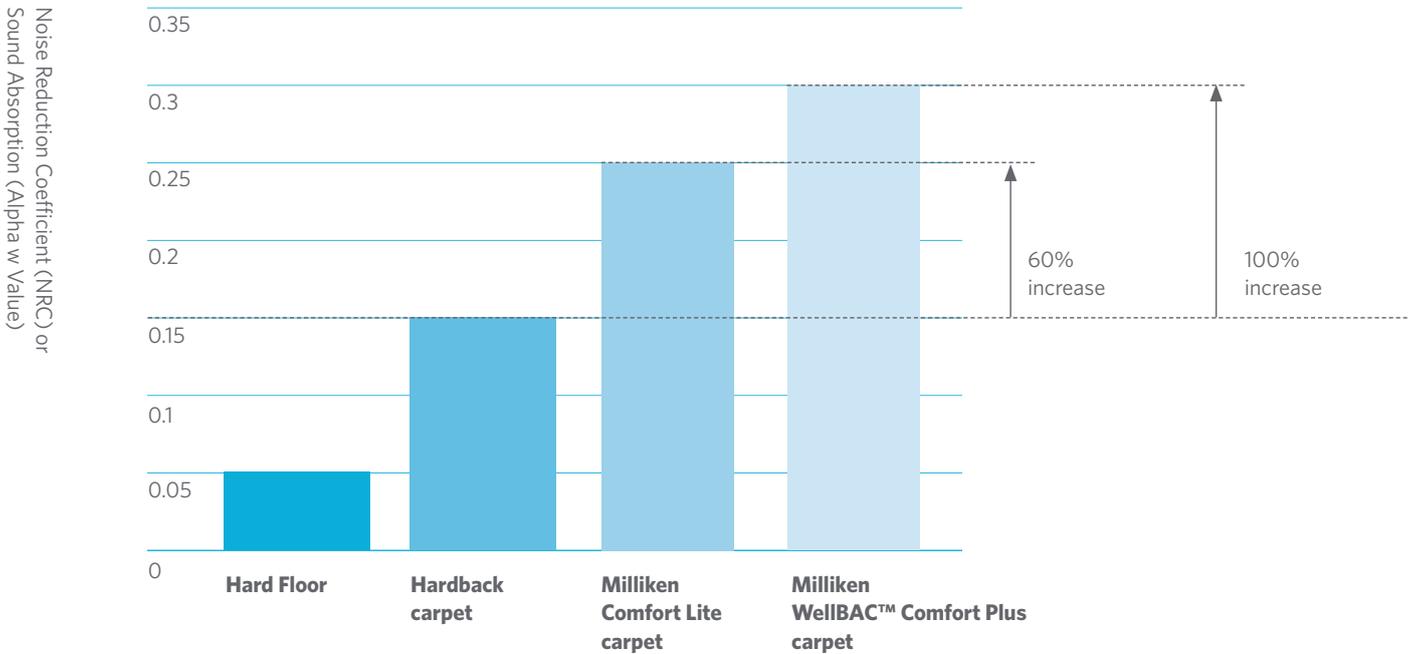
DOWN TO EARTH / Leaf / Cluster
LFC6-180/79-120 Silver Birch/Hare



DOWN TO EARTH / Enlightened
ELT212-236 Fallow

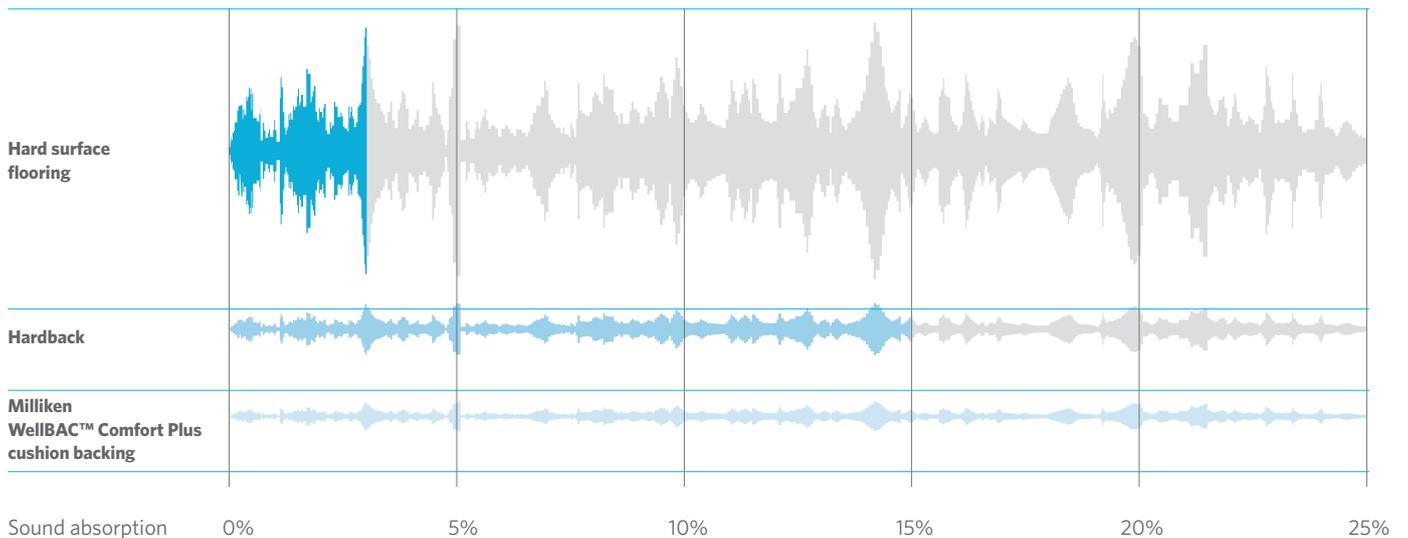
MAKE A **SOUND** CHOICE WITH MILLIKEN

Impact Noise Comparison



WellBAC™ Comfort Plus reduces impact sound (e.g. from foot traffic) by up to 40%

Sound Absorption Comparison



Milliken Cushion Backing provides:

- **24% less noise generation than hardback carpet**
- **90% less noise generation than a hard surface**

Acoustic Values

DOWN TO EARTH / Grounded / Leaf / Twig



Sound Absorption (ISO 354)

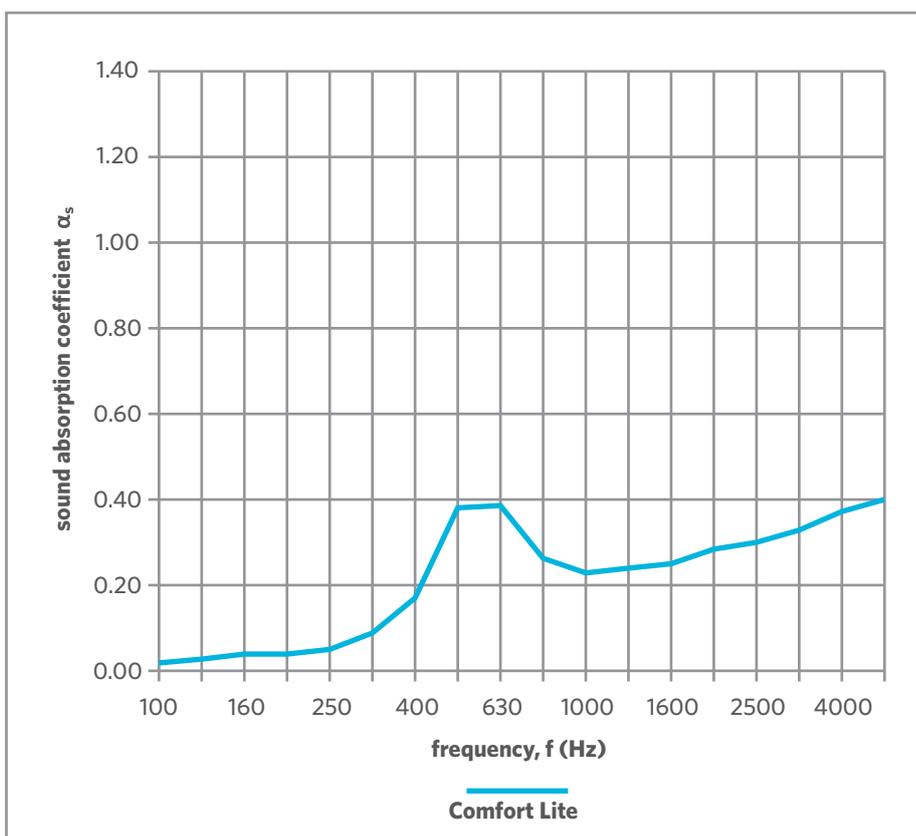
Impact Sound (ISO 140-8 / ISO 10140-3)

Down to Earth Comfort Lite α_w 0.30 Class D

Down to Earth Comfort Lite ΔL_w 32dB

Sound absorption coefficient α_s

| FREQUENCY (Hz) | Comfort Lite α_s |
|-------------------|----------------------------|
| 100 | 0.02 |
| 125 | 0.03 |
| 160 | 0.04 |
| 200 | 0.04 |
| 250 | 0.05 |
| 315 | 0.09 |
| 400 | 0.17 |
| 500 | 0.38 |
| 630 | 0.39 |
| 800 | 0.26 |
| 1000 | 0.23 |
| 1250 | 0.24 |
| 1600 | 0.25 |
| 2000 | 0.28 |
| 2500 | 0.30 |
| 3150 | 0.33 |
| 4000 | 0.37 |
| 5000 | 0.40 |



| α_p values (Comfort Lite) | | | | | |
|----------------------------------|--------|--------|---------|---------|---------|
| 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz |
| 0.05 | 0.05 | 0.30 | 0.25 | 0.30 | 0.35 |

| α_w | Class |
|-------------------------|-------|
| (overall value) 0.30 | D |

Acoustic Values

DOWN TO EARTH / Enlightened



Sound Absorption (ISO 354)

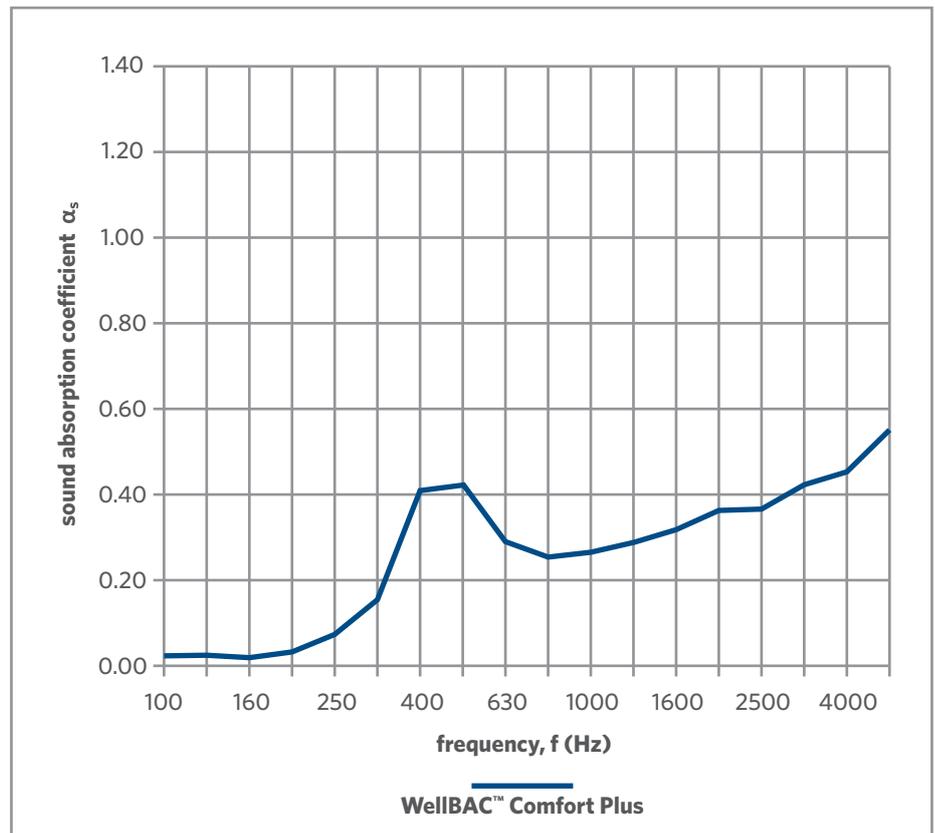
Impact Sound (ISO 140-8 / ISO 10140-3)

Down to Earth WellBAC™ Comfort Plus
 α_w 0.30 Class D

Down to Earth WellBAC™ Comfort Plus
 ΔL_w 33dB

Sound absorption coefficient α_s

| FREQUENCY (Hz) | WellBAC™ Comfort Plus α_s |
|-------------------|-------------------------------------|
| 100 | 0.03 |
| 125 | 0.03 |
| 160 | 0.02 |
| 200 | 0.04 |
| 250 | 0.07 |
| 315 | 0.15 |
| 400 | 0.41 |
| 500 | 0.42 |
| 630 | 0.29 |
| 800 | 0.26 |
| 1000 | 0.26 |
| 1250 | 0.29 |
| 1600 | 0.32 |
| 2000 | 0.36 |
| 2500 | 0.37 |
| 3150 | 0.42 |
| 4000 | 0.45 |
| 5000 | 0.55 |



α_p values (WellBAC™ Comfort Plus)

| 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz |
|--------|--------|--------|---------|---------|---------|
| 0.05 | 0.10 | 0.40 | 0.25 | 0.35 | 0.50 |

α_w Class

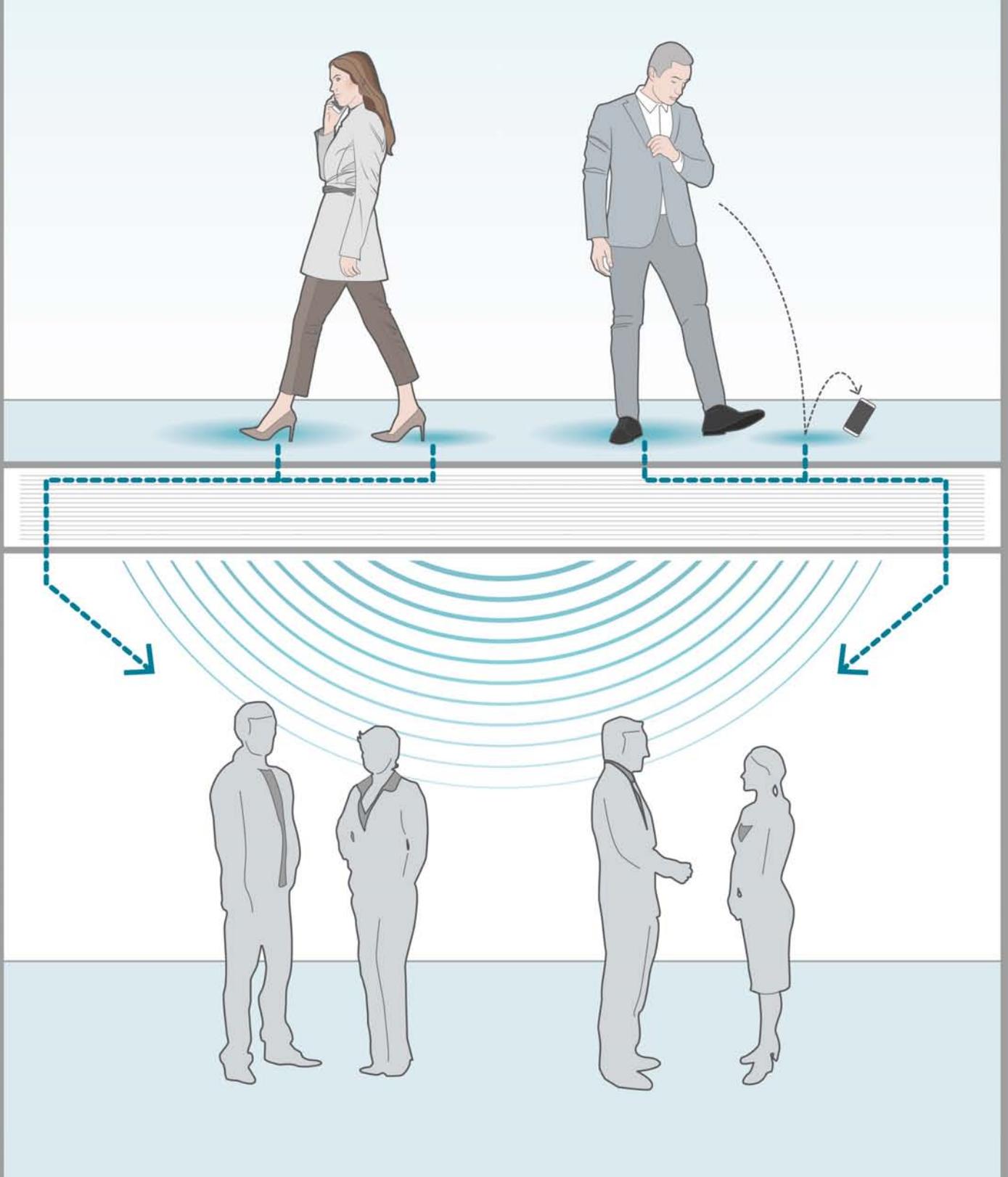
| α_w (overall value) | Class |
|-------------------------------|-------|
| 0.30 (H) | D |



DOWN TO EARTH / Enlightened
ELT14-124-21 Samara

SOUND TRAVELS

In a building with multiple floors, installing a floor covering that reduces impact sound, can dramatically reduce the intensity of sound on the floor below from both impact noise (eg walking) and background noise (eg telephones or conversations.)





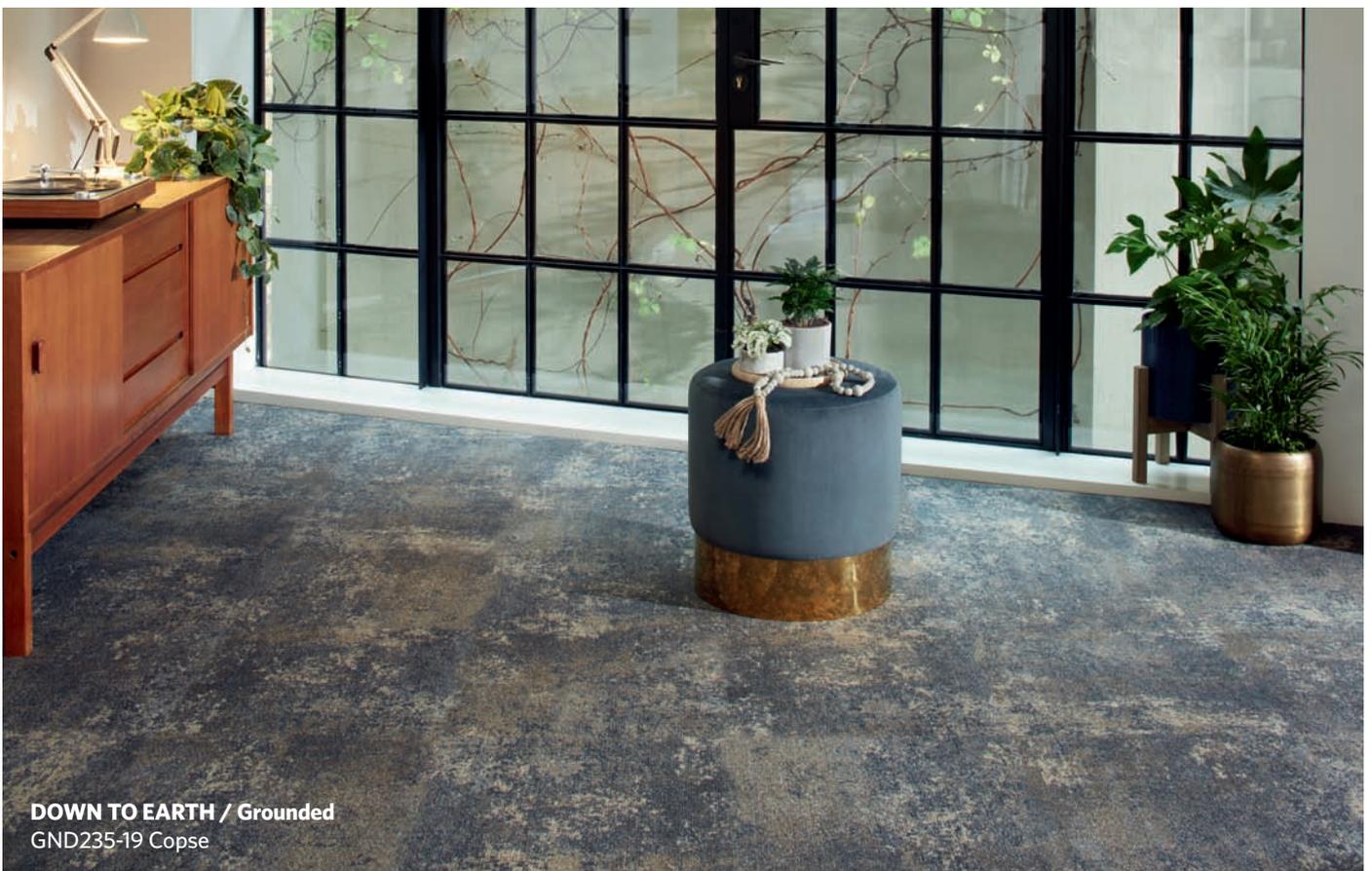
DOWN TO EARTH / Grounded
GND254-251 Tawny



DOWN TO EARTH / Enlightened

ELT180-154 Hedgehog
ELT120-261-143 Foxglove
ELT6-180 Silver Birch

To transform, enhance and increase the well-being and acoustic performance in your interior space, view our entire Down to Earth collections [here](#)



DOWN TO EARTH / Grounded

GND235-19 Copse

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Milliken™