

make
own **your**
composition

sarlon[®] sparkling
ACOUSTIC COMPACT VINYL





The answer to many constraints and requirements in the health sector.

Finding a product that can satisfy usage requirements of care personnel, comfort requirements for occupants, safety requirements for everyone and durability requirements during use is often a difficult challenge.

The only solution is **Forbo's Healthcare Solution** approach using compact acoustic products unique on the market and a detailed segmentation by application field.

Sparkling

The dedicated offer to healthcare area

It is essential that new and renovated buildings designed nowadays should satisfy tomorrow's requirements. The colour harmony of the overall project cannot be considered without the use of materials that satisfy constraints in the health care sector.

Our ambition with **the Sarlon Sparkling** range is to offer a product range that combines the widest colour pallet on the market and product technicity adapted to the needs of users including care providers, patients and other users.

Texture

The dedicated offer to housing for the elderly

When an area becomes a routine living space, coloured environments must be able to include warm and reassuring colours.

The Texture range was developed to offer a combination of textures and expressions of materials to create comfortable environments adapted to senior citizens and their families.

Available in 2014

THE ONLY PRODUCT RANGE THAT COMBINES

aesthetic & technic

6 FLOORING ADAPTED FOR USE IN THE HEALTHCARE ENVIRONMENT

- 3 products that combine acoustic comfort and an easy traffic of wheeled equipment
- Improved hygiene due to antibacterial properties
- The safety of people on a non-slip floor

4 FINALLY, UNLIMITED COLOUR

- Because the aesthetic of the environment contributes to everyone's comfort
- Flooring that harmonises with its environment

10 OPTIMISED INVESTMENT DUE TO PRODUCT DURABILITY

- Durability of a stain-resistant flooring
- Dimensional stability
- Resistance to traffic and wear

12 A RANGE THAT CARES FOR HEALTH AND THE ENVIRONMENT

- Reduction in consumption of electricity for lighting
- Anti-bacterial treatment based on natural products
- TVOC < 75µg/m³
- Available in phthalate-free plasticizer version and in bio-based plasticizer version on request
- Our objective: reduce our ecological footprint

16 IN ADDITION

- Product description
- entrance flooring systems

Finally,
unlimited
colour

The way of addressing the construction or renovation of buildings is changing. Even if essential construction and renovation requirements remain unchanged, comfort is now a criterion which makes a difference. Therefore the treatment of environments and colours naturally forms part of the global approach for the environment concerned.

BECAUSE

the aesthetic

OF THE ENVIRONMENT CONTRIBUTES
TO EVERYONE'S COMFORT

The Sarlon Sparkling colour range was developed to satisfy this need for harmony in indoor areas, resulting in a wider range of colours. It now becomes so easy to select colours which will blend into an environment composed of elements made from various materials: walls, furniture, doors, support bars, signs, etc.

The widest colour range on the market

The **Sarlon Sparkling colour range** was defined as a function of fundamental colour principles. With 45 colours, you will always find whatever is **best for your project**. You will be undeterred as you build up your colour combinations, like a rainbow.



FLOORING THAT

harmonises

WITH ITS ENVIRONMENT

It is not easy to create an atmosphere and a harmony. The various materials used in a single space have to be made compatible. Metal, wood, concrete, ceramic, it is sometimes difficult to find ideal shades.

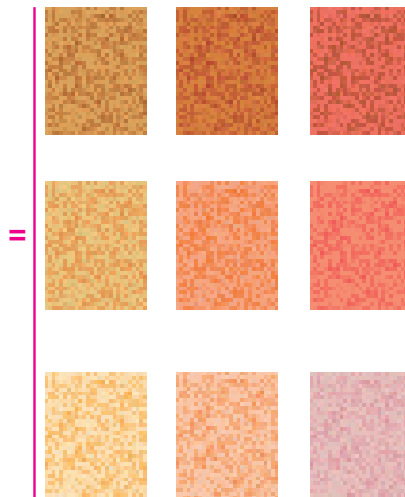
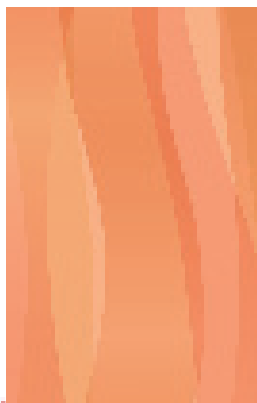
The Sarlon Sparkling range is large enough so that you can be sure that you will find the colour that will match the surrounding materials for a colour concept « from the floor to the ceiling »!

Shades selected to be combined

We have developed a genuinely practical product range as a result of long-term studies of our customers' needs. The very precise choice of shades gives a coherent range composed of natural colours and tints, and neutral tones available in three shades :

- pastel
- bright
- deep

Finally, unlimited colour choices!



Flooring adapted
to the healthcare
environment

More than in any
other type of building,
health institutions
must guarantee a
healthy, clean and long
lasting environment.
The choice of flooring
has a major impact in
this field.

3 PRODUCTS THAT

combine

acoustic comfort and an easy
traffic of wheeled equipment

It must satisfy requirements specific to the environment: shock resistance, resistance to wear caused by frequent passage of rolling equipment, punching, chemicals, frequent and sometimes special cleaning operations, etc., and obviously the safety of persons, including care personnel and users.

Forbo has focussed its research on a key concept for the health environment, namely **rollability**.

Moving a heavy load that has penetrated into the floor requires a certain amount of energy.

The use of compact acoustic flooring with high density structures reduces penetration, resulting in less energy necessary to move the load.

Compact, acoustic?

**3 choices available to you!
compact and acoustic with Sarlon Sparkling 15 dB.**

Good rollability makes work easier by facilitating the movement of heavy loads such as stretchers, wheelchairs, etc.

Good acoustic treatment provides comfort and well being for users, and also for care personnel.

The Sarlon Sparkling range includes three products so that you can find the most appropriate product to suit your needs:

- Sparkling Compact 8dB
- Sarlon Sparkling 15dB
- Sarlon Sparkling 17dB

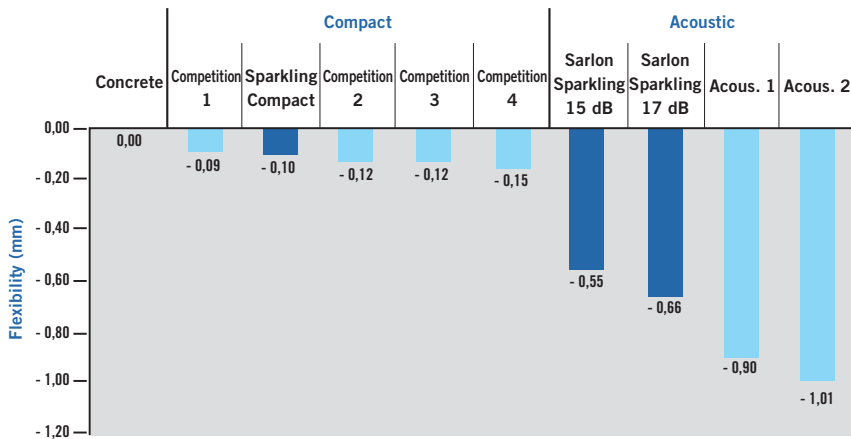
	Sarlon Sparkling 15 dB	Sarlon Sparkling 17 dB	Sparkling Compact 8 dB
Impact sound reduction	15 dB	17 dB	8 dB
Residual indentation	0,06 mm	0,08 mm	0,03 mm
Underfoot comfort / immediate indentation	0,55 mm	0,66 mm	0,10 mm
Wear layer thickness	0,70 mm	0,90 mm	0,90 mm



Proven performance

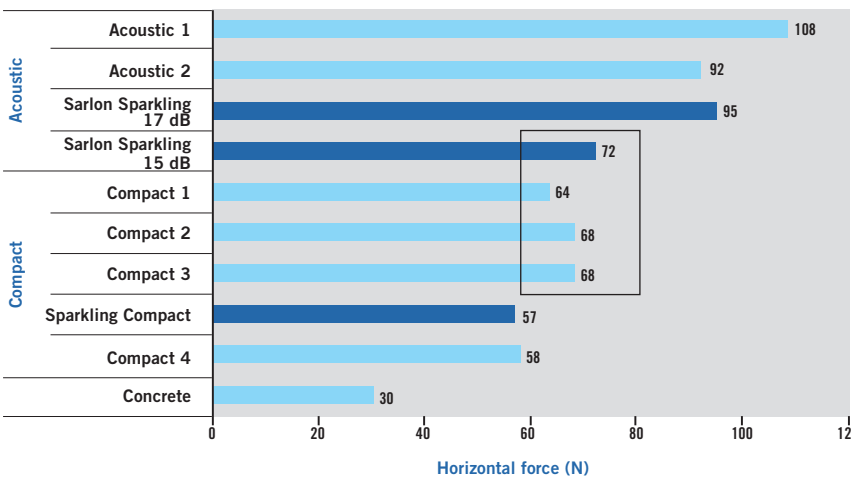
- 2 major elements are used to **measure the movability of a wheelchair on a floor**:
- The sinking of the heavy load (measurement test of the walking flexibility according to the EN 433 standard).
 - The energy required to get the load to move (measure of strength - Test developed by our laboratories).

TEST RESULTS OF IMMEDIATE INDENTATION



The Acoustic offer Sarlon Sparkling 15 dB and 17 dB sinks 2 times less than the other acoustic vinyl products on the market.

TEST RESULTS OF LOAD MOVEMENT



The acoustic compact product Sarlon Sparkling 15 dB, requires the same strength of movement as compact products available in the market .

Flooring adapted
to the healthcare
environment

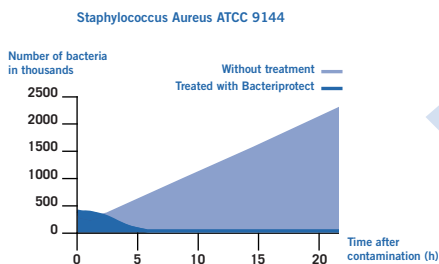
Hygiene requirements
in healthcare
environments are
naturally very high.



Sample without treatment =
Bacteria present



Sample with
"BACTÉRI'PROTECT" treatment =
No bacteria



IMPROVED HYGIENE DUE TO

Antibacterial



properties

The **Sarlon Sparkling** product range has **all the most recent innovations** developed in our research & development laboratories, to help you limit your risks, and these innovations particularly include the addition of silver ions that block the development of bacteria.

Each bacteria on standard flooring divides into two, and then each divides into another two, giving exponential growth.

Silver ions encapsulated in the flooring are natural additives that disturb the metabolism of bacteria and thus block their development. Action is immediate as soon as flooring is placed and lasts for the entire life of the product.

Bacteria cannot divide on flooring containing silver ions. **They die naturally** after an average life of 2 hours without having been able to reproduce.

Bactéri'Protect, the numbers speak for themselves:

- 99.9% of all micro-organisms eradicated
- Permanent and controlled protection throughout the life of the product
- The treatment is active immediately after placement of flooring, by simple contact

Bacteri'protect is effective against the main strains of bacteria in hospital environments, particularly:

- Staphylococcus Aureus
- Staphylococcus MRSA (methicilline)
- Pseudomonas
- Aeruginosa
- Candida Albicans
- Escherichia Coli

This is not the case for other available treatments on the market. The certificate issued by the Institut Pasteur certifies the effectiveness of the Bacteri'protect treatment and is available on simple request.

The low quantity of silver ions used and encapsulation in the matrix guarantee absolute harmlessness for the environment, due to their nature.



Ageing tests

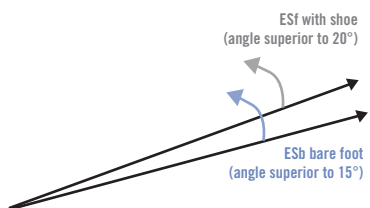
Our teams conduct regular tests to measure the effectiveness of surface treatments that fight against bacteria. The tests are carried out according to the Protocol of the standard JIS Z 2801, on major strains responsible for more than half of nosocomial diseases*.

The product is exposed to usage and cleaning regime that simulates several years of practical use. The results conclude silver ions are **continually effective**.

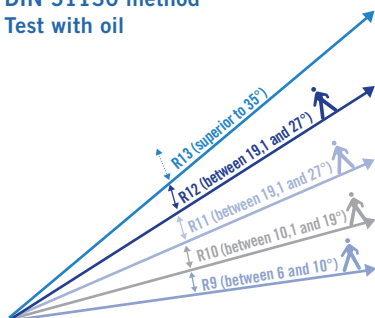
THE SAFETY OF PEOPLE **on a** non-slip floor

The **double R10 classification** according to DIN 51130 and ESf rating according to EN 13.845 makes the **Sarlon Sparkling range unique on the market**. Indeed, the surface structure guarantees resistance to slip of a person wearing shoes on a wet floor covered with soapy water. This assures safety of care personnel and users when cleaning floors.

EN 13 845 method Test with soapy water



DIN 51130 method Test with oil



The most appropriate method in the health sector is one which measures resistance to slip of a person wearing shoes on a wet floor covered with soapy water. The 3 Products of the range Sarlon Sparkling all benefit of the certificate attesting their ESf classification.

The measurement of the slip: the method of the tilted ramp

The slip is characterized by a coefficient taking into account the nature of the body in contact with the floor covering (with footwear or bare foot), the nature and the quantity of water or lubricant on the floor and mechanical factors related to the person (the heel slip, contact pressure...).

The walking movement and especially the movement of the heel are very complex and cannot be easily imitated by machines. The person walks forward and back on the ramp laid with the flooring material to be tested.

The ramp is raised in varying degrees until the person who is securely fastened slips.

This method enables to determine the maximum angle.

*Source = Institut National de la Veille Sanitaire / National survey of prevalence at nosocomiales infections. June 2006 - Publication March 2009.

Optimised investment due to the product durability

DURABILITY OF A stain-resistant flooring



The **stain protect treatment** was developed to make flooring more resistant to stains specific to the hospital environment, and particularly to **Betadine**, **Eosine** and hydro-alcoholic disinfectant gels which can badly stain the floorings provided with a standard surface treatment.

Test results according to EN 423

	Sarlon Sparkling		
	Sarlon Sparkling 15 dB	Sarlon Sparkling 17 dB	Sparkling Compact
Yellow Betadine 10%	0	0	0
Red Betadine 4%	0	0	0
Alcoholic Betadine 5%	1	1	1
Aqueous Eosine 2%	0	0	0
Alcoholic Eosine 2%	0	0	0

	Acoustic competition		
	Product 1	Product 2	Product 3
Yellow Betadine 10%	3	0	2
Red Betadine 4%	2	0	2
Alcoholic Betadine 5%	3	2	4
Aqueous Eosine 2%	2	0	0
Alcoholic Eosine 2%	4	1	4

	Compact competition		
	Product 1	Product 2	Product 3
Yellow Betadine 10%	2	2	2
Red Betadine 4%	0	0	2
Alcoholic Betadine 5%	3	3	4
Aqueous Eosine 2%	0	0	0
Alcoholic Eosine 2%	4	4	4

EN 423 standard

Protocol: the staining agent is applied for 2 hours; the remaining mark made by the staining agent is then evaluated according to the standard scale.

4	Very sensitive
3	Sensitive
2	Medium sensitivity
1	Little sensitivity
0	Insensitive

DURABILITY DUE TO ALMOST PERFECT

dimensional stability

Less stable non-reinforced products can sometimes be affected by shrinkage (welds that crack) or stretching (formation of creases).

Products in the Sarlon Sparkling range include a **glass fibre reinforcement** that enables them to maintain very good dimensional stability essential for long term durability of the flooring.

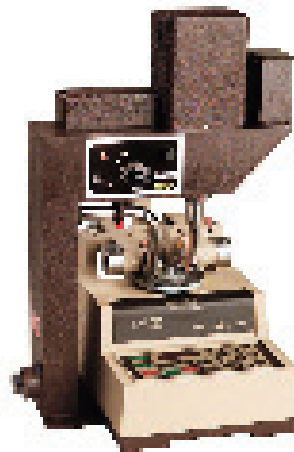


Resistance to traffic and wear

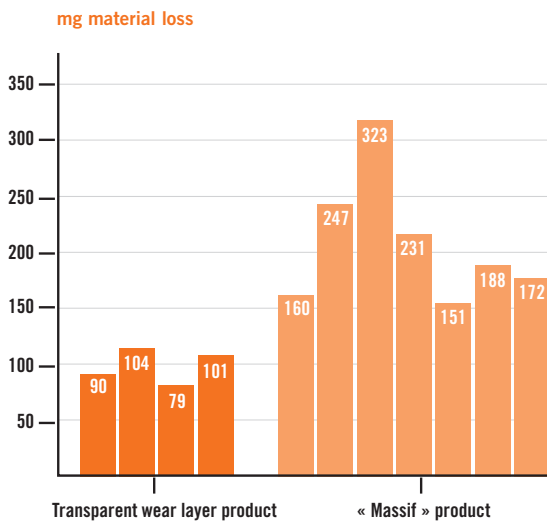
Unlike popular thinking, products with a transparent wear layer have greater resistance to wear over time.

This is proved by the test that simulates 30 years of use:

- So-called « massif » product with filler: 50 to 70% lost material.
- Transparent wear layer: only 30% lost material.



The sample is fixed on a horizontal rotating disc and 2 grinding wheels weighted down with weights roll on the surface of the sample causing the wear which is evaluated by measuring the weight loss of the sample.



Resistance test

The CEN 134-4 standard determines the resistance to abrasion from 100 cycles of an abrasive wheel: this test is often called TABER by the name of the machine which operates the test. Extrapolation of this test to 5000 cycles enables to simulate the use of a flooring after 30 years approximately.

A range
that cares for
health and
the environment

The objective common to all green buildings is to reduce the global impact of the building on the health of persons and nature by:

- Using energy and water efficiently
- Protecting the health of occupants
- Reducing waste products, pollution and waste of resources

Not just empty words about the environment, genuine actions for protection of the environment.



OUR COMMITMENT: TO HELP YOU reduce

YOUR ECOLOGICAL FOOTPRINT

Protection of persons and the environment is an integral criterion for our product

Reduction in consumption of electricity for lighting

A colour with a good ability to reflect natural light significantly reduces electricity consumption for lighting, because the use of artificial lighting will be delayed.

This property is measured by the Light Reflectance Value (LRV) which must be more than 40% to be optimum.

The Sarlon Sparkling range comprises 40% of colours for which LRV>40%.

Did you know?

A very light colour in a room with natural lighting can divide electricity consumption (for lighting) by a factor three in comparison with a dark colour.

Anti-bacterial treatment based on natural products

The anti-bacterial treatment is based on silver ions which are natural additives, unlike most anti-bacterial chemical-type treatments, thus preventing pollution of cleaning water.

TVOC < 75µg/m³

We are very proud to have developed a unique know-how in the formulation of our products so that we can now offer product ranges with extremely low TVOC levels.



Sarlon Sparkling is available on request in a phthalate-free plasticizer version and also in a bio-based plasticizer version

The well-being of the people using our floor coverings is a constant concern. It is very important that our products contribute positively to the improvement of the quality of the air and to the well-being of users.

The entire product range is available on request* in the following versions :

• **Phthalate-free plasticizer**

Our PVC products contain plasticizers to ensure flexibility, otherwise they would be completely rigid. Plasticizers commonly used by the industry are derived from petrochemicals and contain no harmful phthalates. Nevertheless, it is possible to use another plasticizer that contains no phthalate but which still comes from the petrochemical industry.

• **Bio-based plasticizer**

The plasticizer used has a vegetable origin. The growth cycle of the plant used is only one year, and it is a renewable natural resource.

Unlike traditional PVC ranges, petrochemical-based plasticizers were replaced by plasticizers with a vegetable origin (bio-based plasticisers).

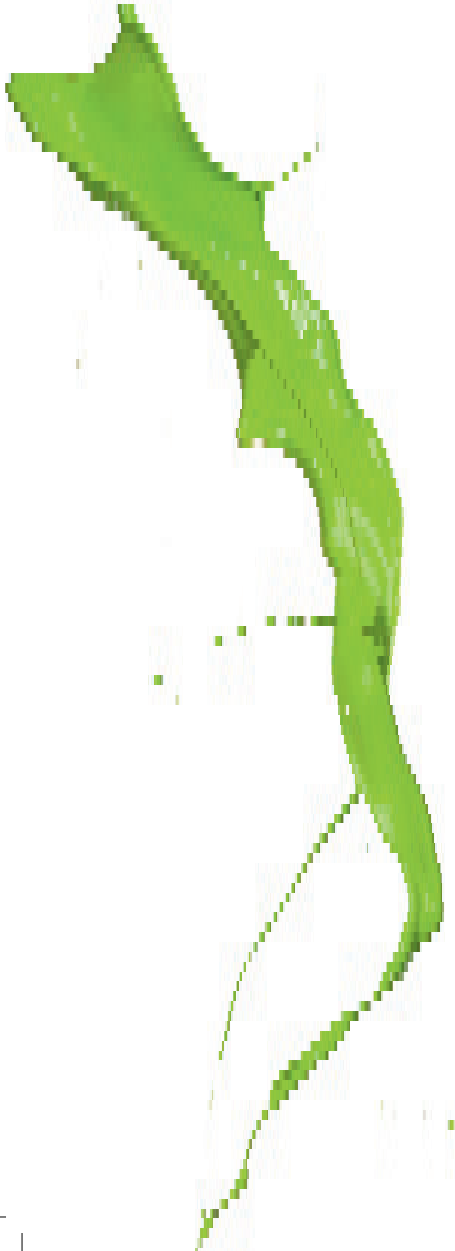
The new plasticizer that we use to manufacture these **products has a vegetable origin**, based on extraction of castor oil from the ricin plant.

For further details, see Forbo's product range Sarlon Absolu.

** Please contact your sales representative*

A range
that cares for
health and
the environment

**Sustainable
development is at the
heart of our activity.
Forbo protects, invests
and takes care of all
our environments.**



OUR OBJECTIVE

reduce

OUR ECOLOGICAL FOOTPRINT

Our objective is simply to optimise our performance starting right now, for the benefit of future generations.

We have made a commitment to improve the environmental performance of our products by permanently working on means of minimising our environmental impacts.

Today, solutions exist.

Forbo Flooring is the **first flooring manufacturer** to use the **Life Cycle Assessment (LCA)** method to measure the environmental performance of each of its products and also for organisation itself.

We have defined an environmental strategy with the ambitious objective of improving all environmental impacts with a **focus on reduction of CO₂** and all other emissions that contribute to irreversible climate change caused by global warming.

Our strategy is based on a **reduction in our environmental impact** as measured by the industry standard LCA method. We have set ourselves the target of **reducing our LCA impact by 25%** by 2015, compared with the reference year 2009.

Our ink consumption

- The new printing technique developed reduces our ink consumption for even sharper printing.
- The inks that we use are water-based inks .
- Inks remaining after each printout are stored so that they can be reused indefinitely without waste («cradle to cradle») concept.



We have already made a significant reduction in our consumption of raw materials

- We have reduced our production waste by 15% in 5 years.
- All our production waste is recycled to be integrated in our flooring products.

Our energy consumption

- We have reduced our energy consumption by more than 10% since 2009.
- The electricity that we use to produce the Sarlon Sparkling range is 100% green, produced from renewable energies guaranteed by Observ'ER (1).

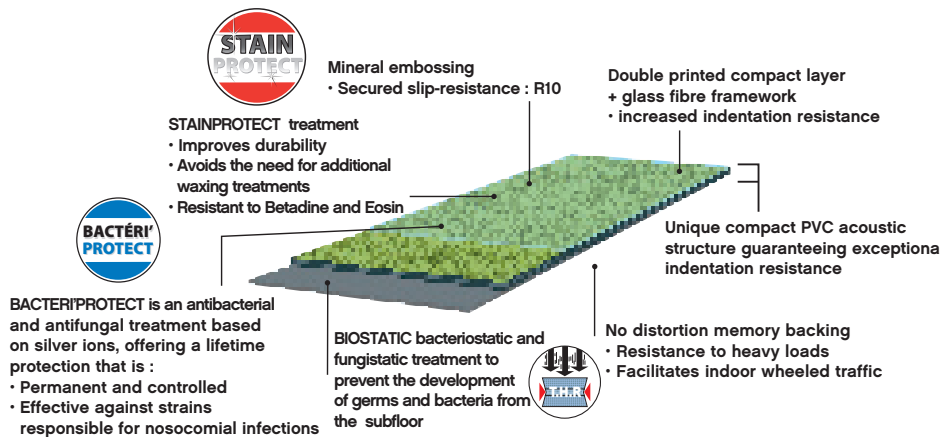
Our water consumption

- We have set up a closed water circuit so that we can limit amounts taken from the town water network.
- Our industrial water treatment plant is capable of treating water particularly efficiently, and once treated, water is 100% free of all ink constituents.

(1) Observ'ER: Observatoire des Energies Renouvelables (Renewable Energies Observatory) (Observ'ER) informs and promotes the development of clean energy and facilitates initiatives necessary to increase the role of renewable energies in the economy and in society. Renewable energies include photovoltaic solar energy, low temperature thermal solar energy, high temperature thermal solar energy, wind energy, hydroelectric energy, geothermal, biomass itself consisting of energy from wood, biogas and biofuels.

In
addition

Product Description



SARLON SPARKLING 15 dB

Supply and lay a 15dB acoustic vinyl floor covering in sheets 2 m wide such as SARLON SPARKLING 15 dB manufactured by FORBO FLOORING SYSTEMS, with residual indentation of 0.06 mm max. and walking flexibility below **0.55 mm** according to the EN 433 standard. Its slip-resistance when wearing shoes on a floor wetted with soapy water is class **ESf**.

It is composed of a transparent compact wear layer, abrasion group T, and a reinforced compact double layer on a high density foam backing. It is also provided with a Bacteri'Protect surface treatment containing silver ions, a Biostatic treatment of the backing and a Stain Protect lacquer to avoid any waxing throughout the life of the floor covering and to ensure proven resistance to the stains generated by products such as betadine, eosine, etc.

SARLON SPARKLING 17 dB

Supply and lay a 17dB acoustic vinyl floor covering in sheets 2 m wide such as SARLON SPARKLING 17 dB manufactured by FORBO FLOORING SYSTEMS, with residual indentation of 0.08 mm max. and walking flexibility below **0.66 mm** according to the EN 433 standard. Its slip resistance when wearing shoes on a floor wetted with soapy water is class **ESf**.

It is composed of a transparent compact wear layer, abrasion group T, and a reinforced compact double layer on a high density foam backing. It is also provided with a Bacteri'Protect surface treatment containing silver ions, a Biostatic treatment of the backing and a Stain Protect lacquer to avoid any waxing throughout the life of the floor covering and to ensure proven resistance to the stains generated by products such as betadine, eosine, etc.

SPARKLING COMPACT

Supply and lay an 8dB heterogeneous compact vinyl floor covering in sheets 2 m wide such as SPARKLING COMPACT manufactured by FORBO FLOORING SYSTEMS, with residual indentation of 0.03 mm max. and walking flexibility below **0.10 mm** according to the EN 433 standard. Its slip resistance when wearing shoes on a floor wetted with soapy water is class **ESf**.

It is composed of a transparent compact wear layer, abrasion group T, and a reinforced compact double layer. It is also provided with a bacteri'Protect surface treatment containing silver ions, a Biostatic treatment of the backing and a Stain Protect lacquer to avoid any waxing throughout the life of the floor covering and to ensure proven resistance to the stains generated by products such as betadine, eosine, etc.



In
addition

Forbo offers an ideal solution for all situations with its Coral and Nuway matting.



Complementary PRODUCTS

Dirt brought into buildings by pedestrians reduces reception quality. The placement of an efficient matting system will protect your floor coverings and contribute to making 65% savings on maintenance costs.

Entrance flooring systems

coral[®] : Flexible matting

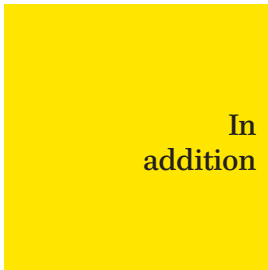
Coral flexible matting absorbs up 90% of dirt and moisture. It reduces cleaning costs (water, solvents, time, electricity, etc.) and extends the life of your floor coverings. It is made in our Krommenie factory (Netherlands). The Coral range has a 5-year guarantee provided that it is installed and maintained in accordance with our recommendations.

nuway[®] : Rigid matting

Nuway rigid entrance mats capture dirt and moisture in high traffic entrance zones and contribute to reducing floor maintenance costs. They are reversible, inter-changeable and made to measure in Telford (UK). Nuway Grid has a 7-year guarantee and Nuway Tuftiguard has a 15-year guarantee provided that they are installed and maintained in accordance with our recommendations.

The guarantee on your Forbo floor coverings can be extended by up to 6 years if you use these mats*.

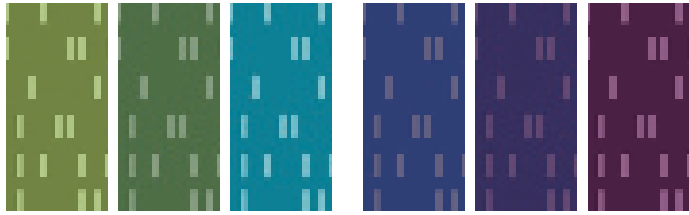
**Please contact your sales adviser for further information.*



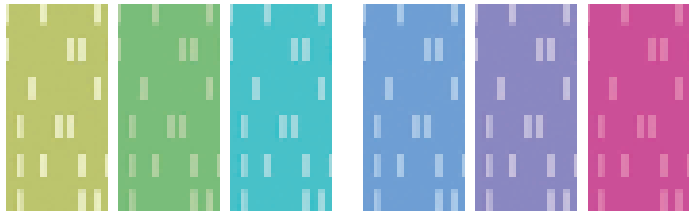
In
addition

In addition to the Sparkling design on stock, we offer you the possibility to order 2 other designs: CodeOne and Nuance. These designs can be applied to the 3 products, Sarlon Sparkling 15 dB and 17 dB as well as Sparkling Compact.

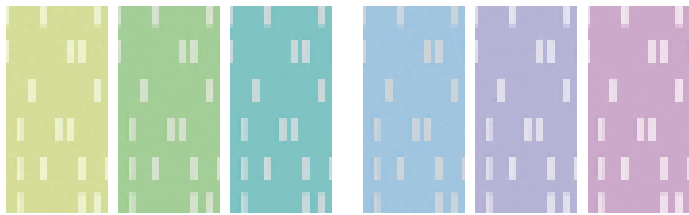
CodeOne Design



C-One-001 C-One-004 C-One-007 C-One-010 C-One-013 C-One-016

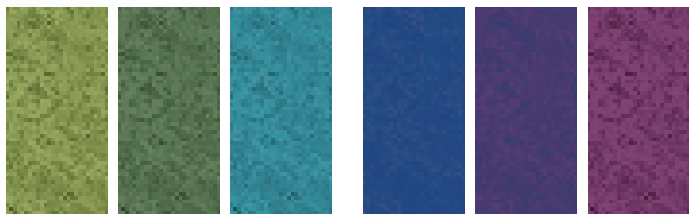


C-One-002 C-One-005 C-One-008 C-One-011 C-One-014 C-One-017

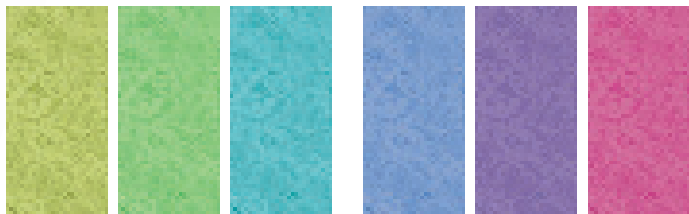


C-One-003 C-One-006 C-One-009 C-One-012 C-One-015 C-One-018

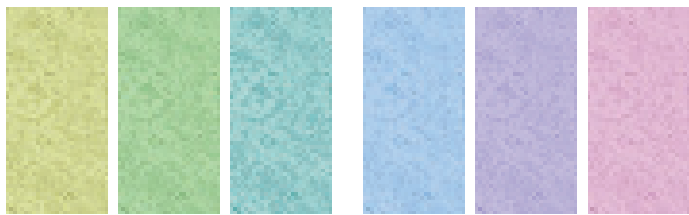
Nuance Design



N-001 N-004 N-007 N-010 N-013 N-016

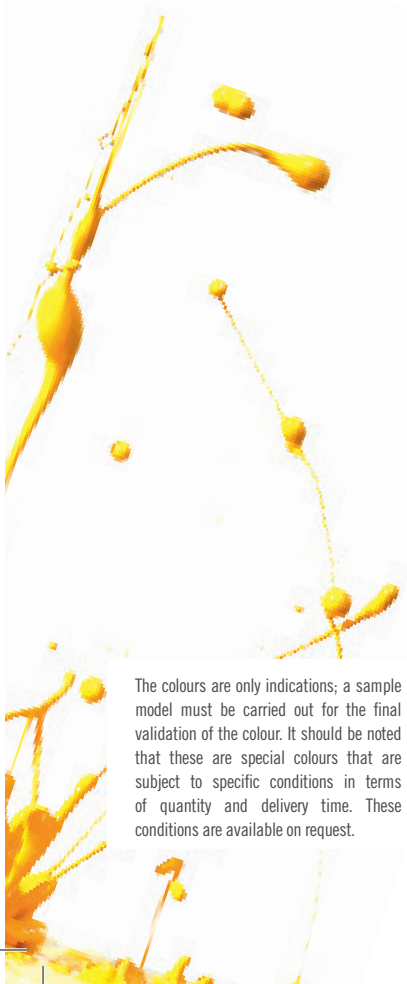


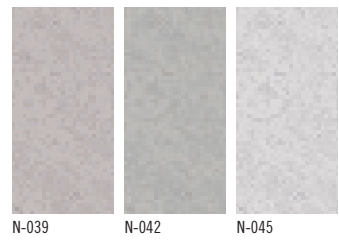
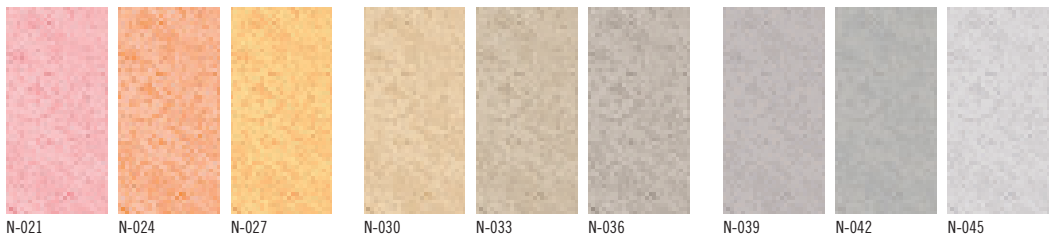
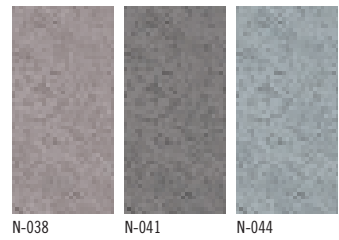
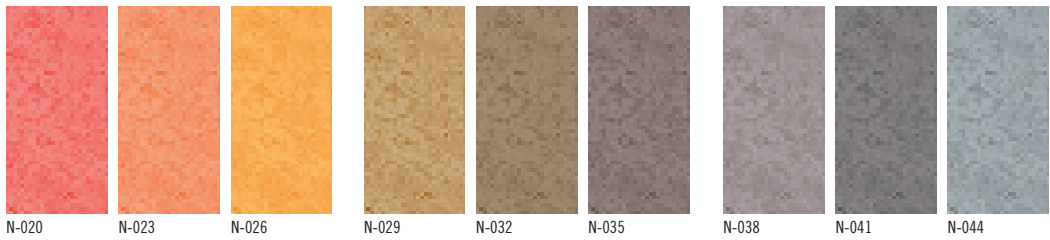
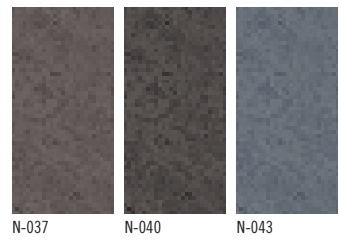
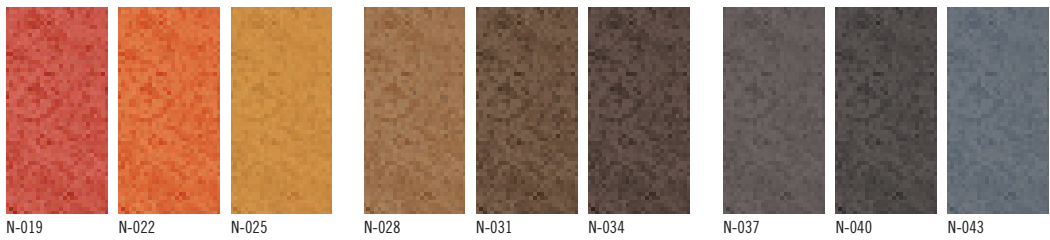
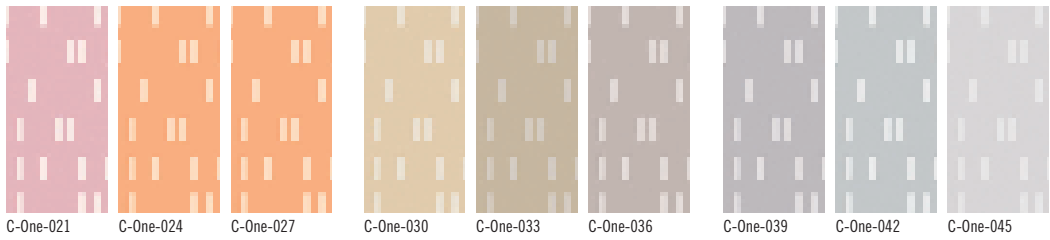
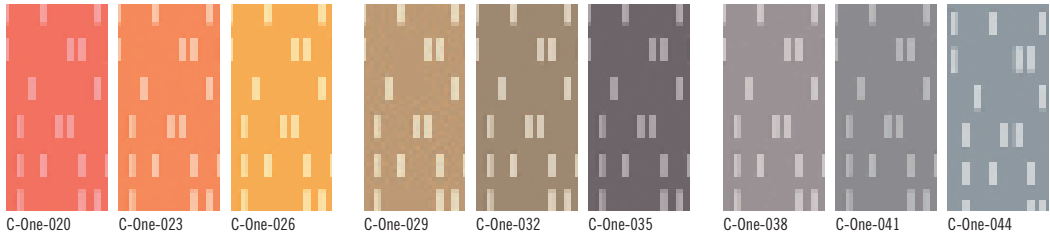
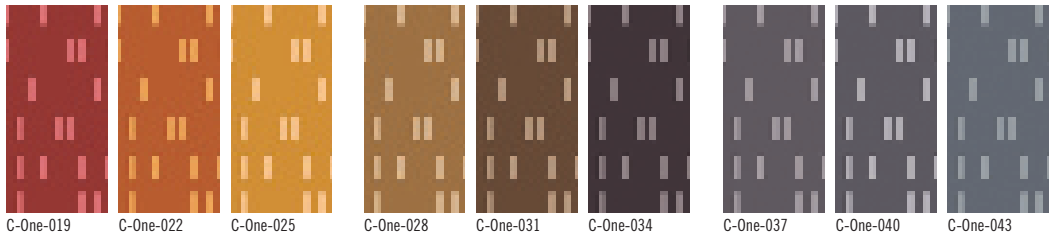
N-002 N-005 N-008 N-011 N-014 N-017

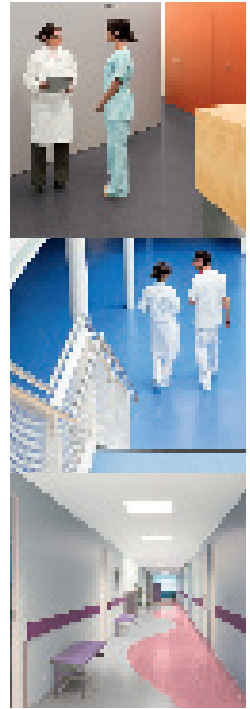


N-003 N-006 N-009 N-012 N-015 N-018

The colours are only indications; a sample model must be carried out for the final validation of the colour. It should be noted that these are special colours that are subject to specific conditions in terms of quantity and delivery time. These conditions are available on request.







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