# ANTISTATIC FLOORING

Protect your facility, electronic equipment and employees from ESD effects.

# Antistatic flooring

**Antistatic flooring solutions have dissipative or conductive properties. They either disperse the charges gathering on the floor surface or allow them to flow to the ground, minimizing their harmful effects.**

Antistatic flooring is used in areas where electro-static discharge can cause a fire or explosion, disturb using or damage sensitive electronic equipment, cause damage to electronic ready goods or employees discomfort.

Flowcrete anti-static flooring range consists of both smooth and antislip finishes, thin and thick layered. Ability to use different flooring technologies, epoxy, PU concrete or vinyl ester helps choosing the righ chemical resistance and to achieve additional features, like thermal shock resistance or antibacterial properties.

# Application suitability



Manufacturing halls



Manufacturing lines



Assembly areas



Electronic equipment warehouses



Chemical storages



Laboratories



Server rooms



Clean rooms



R&D rooms



Hazardous areas

# Technical profile

| | | Flowcoat ESD SF41 | Flowcoat ESD SF41 Structure | Peran ESD SL | Peran ESD SL20 | Peran ESD STB Compact | Peran ESD STB Structure |
|---|---|---|---|---|---|---|---|
| ANTISTATIC PROPERTIES | $R_G$ (EN IEC 61340-4-1) | <$10^9$ Ω | <$10^6$ Ω | <$10^6$ Ω | <$10^6$ Ω | <$10^6$ Ω | <$10^6$ Ω |
| | EN IEC 61340-5-1 compliance | ✓ | ✓ | ✓[1] | ✓ | ✓ | ✓ |
| | EPA suitability | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | ATEX suitability | – | ✓ | ✓ | ✓ | ✓ | ✓ |
| MECHANICAL PROPERTIES | Foot traffic resistance | Medium* | Medium* | Heavy* | Heavy* | Heavy* | Heavy* |
| | Wheel traffic resistance | Light* | Medium* | Medium* | Medium* | Heavy* | Medium* |
| | Chemical resistance | Medium | Medium | High | High | High | High |
| | Impact resistance | IR10 | IR10 | IR17 | IR20 | IR20 | IR10 |
| | Temperature resistance | Up to +50°C | Up to +50°C | Up to +60°C | Up to +60°C | Up to +50°C | Up to +50°C |
| CLEANING & HYGIENE[2] | Seamless system | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | Manual cleaning | ✓ | – | ✓ | ✓ | ✓ | – |
| | Machine cleaning | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

[1] Requires using grounding wrist straps by employees.
[2] Due to wide variety of possible soiling types, different final finishes (smooth, structured etc.) and vast offer of cleaning and maintenance chemical agents present on the market, we recommend to always create individual, detailed cleaning plan and instructions in cooperation with professional cleaning company.

*Definitions:
**Light foot traffic** – areas of seldom use and clean enviroment, e.g. server rooms, technical rooms, area for manual sorting of light packages etc.;
**Medium foot traffic** – areas of clean manufacturing with permament foot traffic, in clean shoes, typically on rubber soles, eg. manufacturing and assembling electronic devices
**Heavy foot traffic** – constant feet traffic in dirty areas, using different kinds of shoes, eg. warehouses, handling areas,
**Light wheel traffic** – seldom traffic of hand pallet trucks ( < 100 kg weight) on full rubber wheels, manual sorting of light weight goods
**Medium wheel traffic** – constant traffic of hand or electric pallet trucks ( < 500 kg weight) on full, rubber wheels
**Heavy wheel traffic** – constant hand or electric pallet trucks ( > 1000 kg weight) traffic, wooden pallets dragging

# ESD SF41

Smooth, antistatic flooring system based on solvent-free, pigmented epoxy resin.

Recommended for areas where floor is exposed to light or medium foot traffic and/or light wheel traffice and light or medium chemical loads.

- Electrostatic dissipative
- Smooth surface
- Durability
- Chemical resistance
- Hygenic & easy to clean

## Standard colour chart

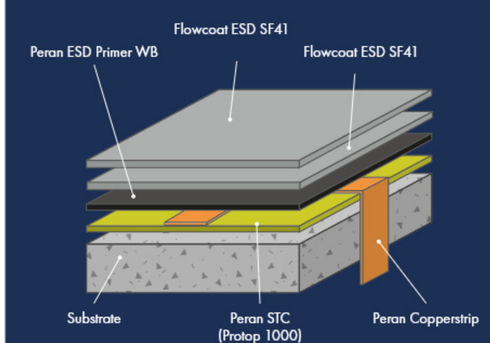
Goosewing Grey 222 | Grey 280 | Dark Grey 281

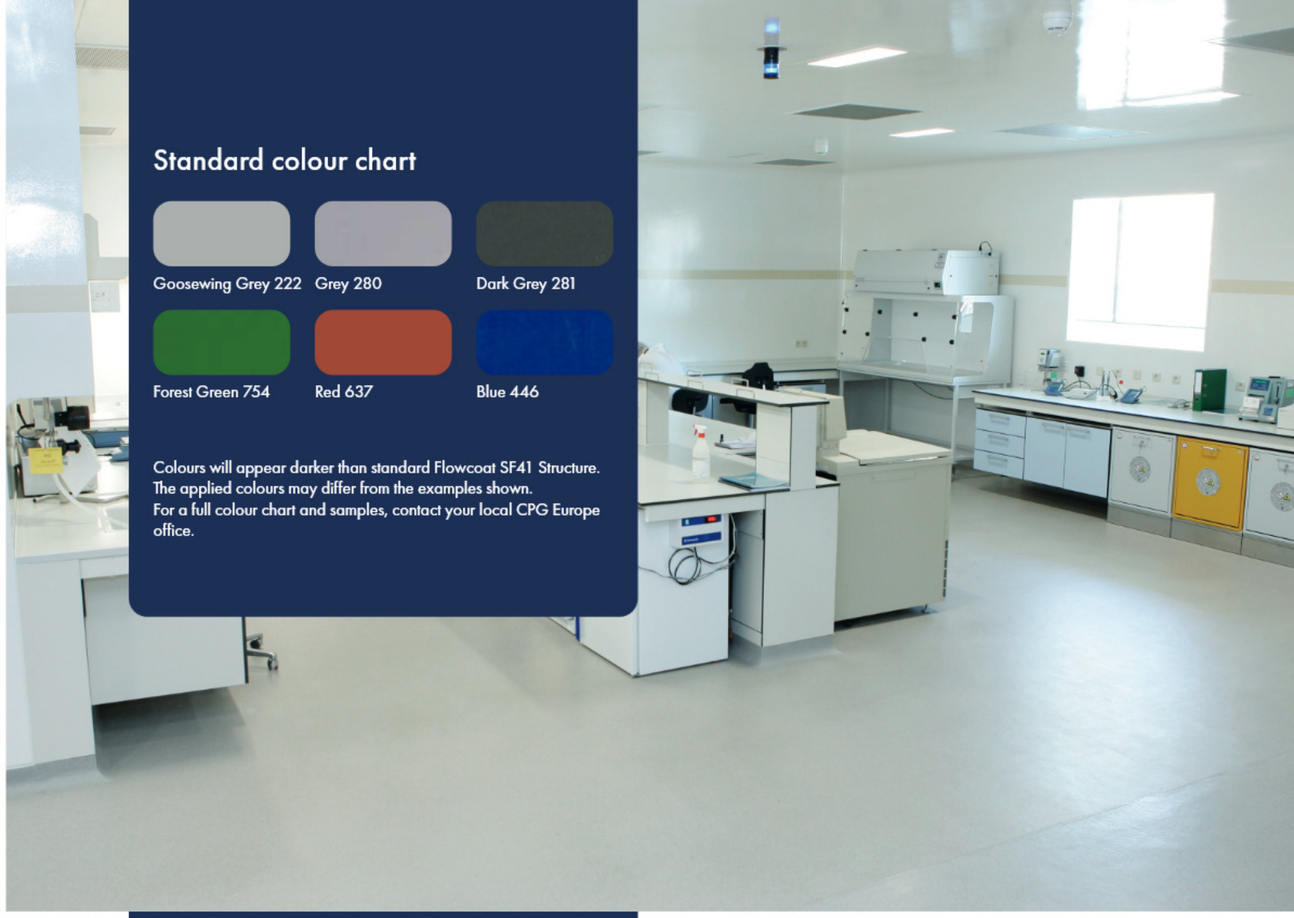
Forest Green 754 | Red 637 | Blue 446

Colours will appear darker than standard Flowcoat SF41.
The applied colours may differ from the examples shown.
For a full colour chart and samples, contact your local CPG Europe office.

## Technical information[3]

| | |
|---|---|
| **ELECTRICAL RESISTANCE** | |
| $R_v$ < $10^9$ Ω | EN 61340-5-1 |
| Body Voltage Generation < 100 V | EN 61340-4-5 |
| **SLIP RESISTANCE[4]** | |
| Dry > 40 | EN 13036-4 |
| **TEMPERATURE RESISTANCE** | |
| Sustained heat: +50°C, intermittent spillages: +70°C | |
| **CAPILLARY ABSORPTION & PERMEABILITY TO WATER** | |
| 0,001 kg/m²xh$^{0,5}$ | EN 1062-3 |
| **SURFACE HARDNESS** | |
| 285 N/mm² | EN 13892-6 |
| **COMPRESSIVE STRENGTH** | |
| > 80 N/mm² | EN 13892-2 |
| **FLEXURAL STRENGTH** | |
| > 60 N/mm² | EN 13892-2 |
| **TENSILE STRENGTH** | |
| > 15 N/mm² | BS 6319 |
| **IMPACT RESISTANCE** | |
| 10 Nm | EN ISO 6272-1 |
| **BOND STRENGTH** | |
| > 2,5 MPa | EN 13892-8 |



## Standard colour chart

Goosewing Grey 222 | Grey 280 | Dark Grey 281

Forest Green 754 | Red 637 | Blue 446

Colours will appear darker than standard Flowcoat SF41 Structure.
The applied colours may differ from the examples shown.
For a full colour chart and samples, contact your local CPG Europe office.

## Technical information[3]

| | |
|---|---|
| **ELECTRICAL RESISTANCE** | |
| $R_G$ <1x$10^6$ Ω | EN 61340-5-1 |
| Body Voltage Generation < 100 V | EN 61340-4-5 |
| **SLIP RESISTANCE[4]** | |
| Dry > 40 | EN 13036-4 |
| **TEMPERATURE RESISTANCE** | |
| Sustained heat: +50°C, intermittent spillages: +70°C | |
| **CAPILLARY ABSORPTION & PERMEABILITY TO WATER** | |
| 0,001 kg/m²xh$^{0,5}$ | EN 1062-3 |
| **SURFACE HARDNESS** | |
| 285 N/mm² | EN 13892-6 |
| **COMPRESSIVE STRENGTH** | |
| > 80 N/mm² | EN 13892-2 |
| **FLEXURAL STRENGTH** | |
| > 60 N/mm² | EN 13892-2 |

# ESD SF41 Structure

Anti-slip flooring system with antistatic properties based on colored epoxy resin and special aggregate.

Provides required anti-slip finish in rooms and areas where the floor is expected to be resistant to medium mechanical and chemical loads.

- Antistatic properties
- Durability
- Antislip finish

[3] The figures in the table beside are typical properties achieved in laboratory tests – these results may vary depending on the conditions on the installation site. [4] The final anti-slip properties of the floor are influenced by the application method, the size and shape of the aggregate used for the topcoat (aggregate recommendations available from CPG Eastern Europe), the degree of abrasion, maintenance and the nature the dirt.

# Peran ESD SL

An epoxy, antistatic, self-leveling flooring system with smooth and glossy finish.

Peran EDS SL is recommended for areas exposed to heavy foot traffic and medium wheel traffic.

- Antistatic properties
- High chemical resistance
- Smooth, seamless & hygenic surface
- Easy to clean
- High durability

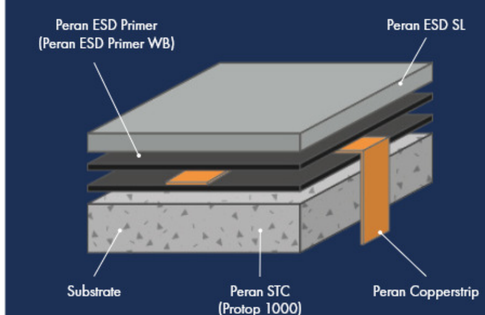
## Standard colour chart




Colours will appear darker than standard Peran SL.
The applied colours may differ from the examples shown.
For a full colour chart and samples, contact your local CPG Europe office.

## Technical information[3]

| | |
|---|---|
| **ELECTRICAL RESISTANCE** | |
| $5x10^4\ \Omega \leq R_g \leq 1x10^6\ \Omega$ | EN 61340-4-1 |
| **REACTION TO FIRE** | |
| $C_{fl}$-s1 | EN 13501-1 |
| **SLIP RESISTANCE[4]** | |
| Dry > 40 | EN 13036-4 |
| **VAPOUR PERMEABILITY** | |
| 0,4 g/m²/mm/24 h | ASTM E96:90 |
| **TEMPERATURE RESISTANCE** | |
| Up to +60°C | |
| **WATER PERMEABILITY** | |
| Karsten test - Nil (Impermeable) | |
| **WEAR RESISTANCE** | |
| RWA1 | EN 13892-5 |
| **COMPRESSIVE STRENGTH** | |
| > 60 N/mm² | EN 13892-2 |
| **FLEXURAL STRENGTH** | |
| > 40 N/mm² | EN 13892-2 |
| **TENSILE STRENGTH** | |
| > 25 N/mm² | BS 6319-7 |
| **IMPACT RESISTANCE** | |
| IR17 | EN ISO 6272-1 |
| **BOND STRENGTH** | |
| B2,7 | EN 13813 |






## Standard colour chart




Colours will appear darker than standard Peran SL20.
The applied colours may differ from the examples shown.
For a full colour chart and samples, contact your local CPG Europe office.

## Technical Information[3]

| | |
|---|---|
| **ELECTRICAL RESISTANCE** | |
| $R_g \leq 1x10^6\ \Omega$ | EN 61340-5-1 |
| Body Voltage Generation < 100 V | EN 61340-4-5 |
| **SLIP RESISTANCE[4]** | |
| Dry > 40 | EN 13036-4 |
| **TEMPERATURE RESISTANCE** | |
| Up to +60°C | |
| **WATER PERMEABILITY** | |
| Karsten test - Nil (Impermeable) | |
| **WEAR RESISTANCE** | |
| AR0,5 | EN 13892-4 |
| **COMPRESSIVE STRENGTH** | |
| > 60 N/ mm² | EN 13892-2 |
| **FLEXURAL STRENGTH** | |
| > 50 N/ mm² | EN 13892-2 |

# Peran ESD SL20

An epoxy, antistatic, self-leveling flooring system with smooth and glossy finish.

Provides highly aesthethic, durable and chemically resistant surface. Compliant with all EPA and ATEX zones requirements including “Walking Test”.

- Antistatic properties
- Smooth, seamless & hygenic surface
- Durability
- Easy to clean

[3] The figures in the table beside are typical properties achieved in *laboratory* tests – these results may vary depending on the conditions on the installation site.
[4] The final anti-slip properties of the floor are influenced by the application method, the size and shape of the aggregate used for the topcoat (aggregate recommendations available from CPG Eastern Europe), the degree of abrasion, maintenance and the nature the dirt.



## Standard colour chart




The applied colours may differ from the examples shown.
For a full colour chart and samples, contact your local CPG Europe office.

## Technical Information[3]

| ELECTRICAL RESISTANCE | |
|---|---|
| $5x10^4\ \Omega \leq R_G \leq 1x10^6\ \Omega$ | EN 61340-4-1 |
| **REACTION TO FIRE** | |
| $B_{fl}$-s1 | EN 13501-1 |
| **SLIP RESISTANCE[4]** | |
| Wet > 40 | EN 13036-4 |
| **TEMPERATURE RESISTANCE** | |
| Do +50°C | |
| **WEAR RESISTANCE** | |
| RWA1 | EN 13892-5 |
| **FLEXURAL STRENGTH** | |
| > 40 N/mm² | EN 13892-2 |
| **IMPACT RESISTANCE** | |
| IR10 | EN ISO 6272-1 |

## Peran ESD STB Structure

Antistatic, antislip flooring system based on a special mixture of conductive epoxy resins and coloured quartz sand.

Very durable floor that provides excellent antislip properties but is easy to clean and maintain.

- Antistatic
- Antislip finish
- Durability & high chemical resistance

## Technical Information[3]

| ELECTRICAL RESISTANCE | |
|---|---|
| $5x10^4\ \Omega \leq R_G \leq 1x10^6\ \Omega$ | EN 61340-4-1 |
| **REACTION TO FIRE** | |
| $B_{fl}$-s1 | EN 13501-1 |
| **SLIP RESISTANCE[4]** | |
| Dry > 40 | EN 13036-4 |
| **TEMPERATURE RESISTANCE** | |
| Up to +50°C | |
| **FLEXURAL STRENGTH** | |
| > 40 N/mm² | EN 13892-2 |
| **TENSILE STRENGTH** | |
| 15 N/mm² | EN 13892-2 |
| **IMPACT RESISTANCE** | |
| IR20 | EN ISO 6272-1 |

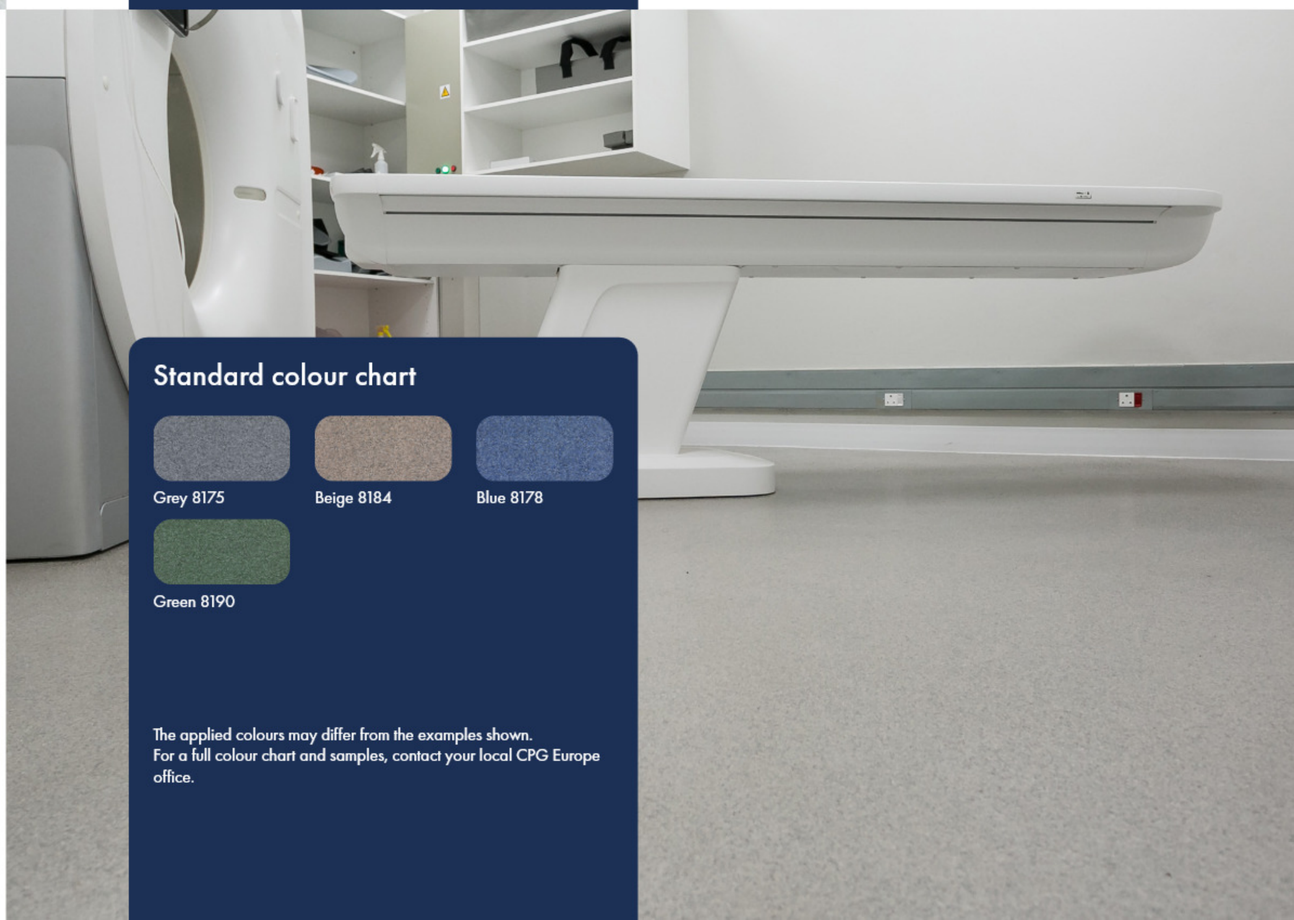
## Peran ESD STB Compact

Industrial, antistatic flooring that consists of coloured quartz granules encapsulated within a clear resin binder.

It has very high durability and chemical resistance. Reccomended for areas with heavy foot and wheel traffic.

- Antistatic properties
- Durability & chemical resistance
- Antislip finish

[3] The figures in the table beside are typical properties achieved in *laboratory* tests – these results may vary depending on the conditions on the installation site.
[4] The final anti-slip properties of the floor are influenced by the application method, the size and shape of the aggregate used for the topcoat (aggregate recommendations available from CPG Eastern Europe), the degree of abrasion, maintenance and the nature the dirt.



## Standard colour chart




The applied colours may differ from the examples shown.
For a full colour chart and samples, contact your local CPG Europe office.

# Antibacterial and corrosion protection flooring systems with antistatic properties

| SYSTEM | DESCRIPTION | APPLICATION SUITABILITY |
|---|---|---|
| Flowfresh ESD MF | A smooth, antimicrobial treated industrial floor based on polyurethane resin with the addition of cement aggregate. It is an antistatic flooring system with high mechanical, thermal and chemical resistance. | Recommended for areas where the floor is at the same time exposed to strong chemicals, high or low temperature and conductive properties are necessary. Ideal for tough environments where very high hygienic standards of manufacturing process are required. manufacturing process are required. |
| Flowchem VE ESD RC | An anti-static roller coat applied, shrinkage compensated, vinyl ester resin based coating with excellent resistance to aggressive chemicals and solvents as well as resistance to mechanical and thermal attack. | Recommended to protect concrete floors, walls, kerbs, equipment bases, trenches, drains and other surfaces exposed to heavy loads, high temperatures, corrosive chemicals and solvents, where antistatic properties are necessary. |
| Flowchem VE ESD GL | Antistatic, protective coating based on non-shrinking vinyl ester resin with continuous reinforcement made of fiberglass mats. | Recommended to protect concrete and metal surfaces exposed to sustained or intermittent chemical, thermal and mechanical loads, where antistatic properties are necessary. |
| Flowchem VE ESD GL Structure | Antistatic, protective coating based on non-shrinking vinyl ester resin with continuous reinforcement made of fiberglass mats. It has antislip finish. | Recommended to protect concrete and metal surfaces exposed to heavy chemical, temperature and mechanical loads, in enviroments where antislip finish and antistatic properties are necessary. |
| Flowchem VE ESD HD | An electrostatic dissipative, horizontal trowel applied, low shrink, vinyl ester resin based screed system with outstanding chemical and mechanical resistance. | Recommended to protect substrates exposed to very high temperatures, strong chemicals, solvents and heavy traffic in areas where antistatic protection is necessary. |



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