

ESTRAD ESD

PRODUCT INFORMATION

Product EN 649	Static dissipative sheet vinyl flooring, DIF (semiconductive) ESD approval certificate Dnr 230-01-0027.
Application	Electronic and telecommunications industry, ADP-rooms, telephone exchanges, operating theatres and other surgical rooms in hospitals, ammunition factories and other ESD-protected areas where static discharge may cause damage to sensitive devices or personnel.
EN 685	21 – 43

TECHNICAL INFORMATION

Thickness	EN 428	2,0 mm
Weight	EN 430	3000 g/m ²
Roll length	EN 426	10 - 25 m
Width	EN 426	150 cm

PRODUCT PROPERTIES

Property	Test method	Result
Fire resistance	DIN 4102	B1
Emissions	EN 13501-1 FLEC	B _{fl} – s1 M1
Sound insulation	ISO & DIN	ΔL_w approx. 2 dB
Dimensional stability	EN 434	< 0,1 %
Residual indentation	EN 433 2,5 h	< 0,05 mm
Effect of castor chair	EN 425	suitable, 0 mm
Abrasion resistance volume lost	EN 660 Pt2	Group T $\leq 2,0 \text{ mm}^3$
Seam strength	EN 684	$\geq 400 \text{ N/50 mm}$
Colour fastness	ISO 105-B02	≥ 7
Insulation resistance	VDE 0100 IEC 60364-6-61	> 100 k Ω
Resistance to ground R _g	EN 1081 IEC 61340-4-1	approx. 10 M Ω (1×10^7) approx. 10 M Ω (1×10^7)
Surface resistance R _s	EOS/ESD 7.11	< 100 M Ω (1×10^8)
Combination resistance (shoes/floor)	IEC 61340-5-1 ESD STM 97.1-1999	< 35 M Ω ($3,5 \times 10^7$)
Charging	ESD STM 97.2-1999	< 10 V
Thermal resistance		0,25 W/m K

INSTALLATION

Any surface suited for normal vinyl flooring will be suitable as a base for installation. RH of the concrete floor must not exceed 90 % or 3,5 % by weight. The temperature of installation, subfloor and material should be at least +20°C.

The backside of flooring has sufficient conductive properties; **conductive adhesive is not required for installation**. For the same reason, a metal grid on the subfloor is unnecessary. Regular vinyl flooring adhesive is suitable for installation. Adhesive manufacturers provide full information and recommendations on the use of their products.

In public areas the floor must be rolled to achieve maximum adhesion. Rolling should be carried out before the adhesive dries. This is done to prevent the emergence of adhesive application lines and indentations on the finished floor surface. Avoid traffic on the floor and do not move furniture until the adhesive has completely dried. To provide a watertight joint the seams of the flooring should be hot welded using a PVC-rod. Also corners should be welded. Where welding is not possible, sealing should be carried out using a suitable welding paste. Welding paste should also be used for sealing of through fitted pipes. Hot air gun should be used on the reverse side of the flooring when laying flooring sections, which are laid against the wall in order to avoid differences in gloss and damages on the floor surface.

MAINTENANCE

Initial cleaning	Sweep floor clean of any loose dirt. Wash with alkaline solution (containing glycol), use red pads or medium hard brushes when cleaning with scrubbing machine or a combination machine. Rinse.
Polishing	If necessary you can polish the floor with one thin coat of an ESD-wax. The electrical insulation resistance must be tested after polishing. Waxing may weaken the conductivity of the flooring.
Daily maintenance	Damp or wet cleaning, depending on type of soiling. Use a neutral or mild alkaline detergent or protective substances. Larger surfaces require the use of a combination machine. When necessary a localised polishing can be carried out on the most trafficked areas.
SHS-Method	The floor can be treated by using Super High Speed machine with light or red pads. The SHS-method allows the use of protective substances.
Stain removal	All stains must be removed immediately to avoid permanent marks on the floor.
Warning	Stain removers may affect the flooring or the adhesive. When in doubt about the effect of stain remover carry out a test or contact flooring/remover manufacturer. On stubborn marks it is recommended to use the effect of chemicals instead of mechanical scrubbing.

RESISTANCE TO CHEMICALS

Test period 24 hours and 2 hours (EN 423), after which the chemical was washed off.

Chemical	24 h	2 h
Lye 10 %	Weak effect	No effect
Soda 10 %	No effect	No effect
Hydrochloric acid 10 %	Strong effect	No effect
Citric acid 10 %	No effect	No effect
Light fuel oil	No effect	No effect
White Spirit	Weak effect	No effect
Acetic acid 30 %	No effect	No effect

WARNING!

Floors may be slippery when wet or polished.
Flooring must not be disposed of by burning.

UPOFLOOR

UPOFLOOR OY P.O.BOX 8, 37101 Nokia, Finland
Tel. +358 207 409 600, Fax +358 207 409 734
www.upofloor.com