





T - JOY

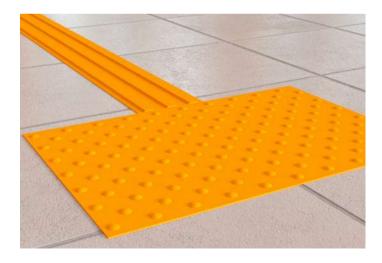
The T-Joy system

The signal and tactile routes integrated system **T-Joy** is designed in accordance with slightest guidelines included in CEN/TS 15209 regulations.

The specific innovation of this system is to provide to visually impaired people both tactile and vocal information (only in those places where the vocal service has been activated).

The environment must be compatible with the orientation needs of visually impaired people to guarantee them both safety and autonomy when moving. The blind or partially-sighted people use also some signals called "natural guides" to orient themselves while moving. Some examples of a "natural guide" are: the pavement's kerb, perceptible with feet or with the white cane, a sound signal of warning, a wall that marks a space.

The tool that allows the sensory access to public places and spaces is the Tactile Ground Surface Indicators (TGSI).







HOW THE SYSTEM WORKS WITH TAG RFG

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Components

STRAIGHT cm 15 X 60



It consists of a single tile in M-PVC-P size 15x60cm, with parallel grooves. It indicates the rectilinear direction. (computable in mtl).

STOP / DANGER cm 30 X 30



It consists of a single tile in M-PVC-P size 30x30cm with a design of studs of semicircular shape arranged in a diagonal grid. It indicates stop/danger. (computable in mtl).

STRAIGHT cm 30 X 60



It consists of a single tile in M-PVC-P size 30x60cm, with parallel grooves. It indicates the rectilinear direction (computable in mtl).

STOP / DANGER cm 30 X 60



It consists of a single tile in M-PVC-P size 30x60cm with a design of studs of semicircular shape arranged in a diagonal grid. It indicates stop/danger (computable in mtl).



All the tiles are integrated with RFG tags 134.2 Khz.

Item specification T-Joy made of M-PVC-P

Tactile surface with equidistant trapezoidal reliefs "olivella" finished mm 2x1. The reliefs' height is not less than 3mm, the width as on the Chart3 – WT3 in CEN/TS15209, distance between reliefs as in the Chart1 S9 of CEN/TS15209. The spherical studs arranged in a diagonal grid indicate stop/danger with respect to CEN/TS15209 regulations. It is made of M-PVC-P with below technical specifications:

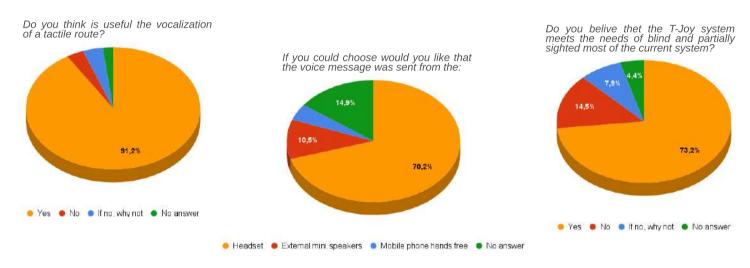
DESCRIPTION	UM	VALUE	TESTING METHOD
Friction coefficient	μ	> 0,40	B.C.R.A. method
IRemaining track	mm	0,1	EN433
Wheelchair	-	suitable	EN425
Electrical insulation	ohm	1010	DIN 51953
Resistance to chemical product	-	suitable	DIN 51958
Resistance to fire	-	B-fl/s1	UNI EN 13501-1
Hardness	Shore A	91	ISO 868
Xenon arc aging test (with anti-UV)	h	> 300	UNI EN ISO 4892-2
Heat insulation	W/mk	0,12	DIN 52612
Specific weight	gr/cm ³	1,24+/- 0,02	ISO 1183
Failing load (after 168h at 100 °C) °C)	N/mm²	19	CEI 20-34
Stretch (after 168h at 100 °C)	%	305	CEI 20-34
Thermal stability	min	35	CEI 20-34
Twisting stability	°C	-20	ASTM D 104
Slipperes test	-	R 11	DIN 51130



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What do users think about the innovation

The Tactile Ground Surface Indicators (TGSI) **T-Joy** is designed in accordance with the CEN/TS 15209 regulations. It allows blind or partially-sighted people to reach the destination trough the scan of a tactile map, if present, the feet-sense-of-touch and the manual feedback (the white cane) or even, for partially-sighted persons, the chromatic contrast. **The process of orientation that these tools can provide is then structured in different stages: maps reading, information memorization, guiding path.**



The T-Joy System makes the knowledge procedure of the environment and the orientation PRECISE and IMMEDIATE thanks to the RFG (Radio Frequency Ground) technology that, if integrated with the plantar-tactile system, gives vocal information in the right point of contact between a specific hardware and the pavement implemented with RFG detectors.

Installation with glue

The glue to be used is a polyurethane adhesive made up of two elements with high tenacity and low viscosity: Component A (polymer polyurethane) and Component B (hardner).

The components need to be carefully mixed together to get a paste, that can easily be affixed with a trowel, a roller or a squeegee. The base must be evenly dry, sound, free from dust or removable parts, without cracks, paint, wax, oil, rust and anything else that may affect the adherence. Tiles must be got out from their packaging a few hours before installation and laid down: they need to acclimatize and loose the internal stress.

The glue must be carefully manipulate and mixed from the center outwards. Pay attention to mix also the side parts and to let bubbles come out.

Tiles are to be laid in order to assure a good coplanarity. They should be fixed on existing pavement, there is no need to remove or polish it. Tiles are quite thin, then you are not needed to glue them on a screed, as needed for other kind of pavement.

In case tiles have planarity defects, it is needed to put sand sack or something heavy on deformed section and maintain them until the glue is hardened.

Warning: don't use on surfaces where humidity can easily return, on wet surfaces or on not-dry asphalt (wait 30 days at least), on bituminous surfaces where oil could easily exude.



Installation with double sided tape

A polyester film heavily coated on both sides with acrylic glue could be used to fix the product both on smooth or even on irregular surfaces.

To obtain the expected outcome, installation surfaces must be clean, dry and solid. To clean the surfaces before the installation, solvent like isopropyl alcohol mixed with water or heptane is to be used. When using those solvents pay attention to instruction and warnings on the label.

The endurance would be much stronger, if a hard pressure is used after the tiles have been laid. The fixing is at 50% after 20 minutes, 90% after 24 hours and is complete after 72 hours. Sometimes it could be useful to use warm air (ex: 70° for 1 hour) to obtain a better impermeability.

Caution: products must be kept in their package at maximum 23°C and with no more than 50% humidity.





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