

Purpose

To define and to express clearly the standard qualitative characteristics of the tolerances that INNOLAC s.r.l. can grant.

Here follow the reference qualitative requirements for the tolerances of supplies of the finished product in the case they are not indicated on the drawings.

Requirements or tolerances different from this specification must be agreed in advance.

1) General Data

All the information given in the drawings issued by INNOLAC will be respected and the given tolerances will be maintained. This specification will have to be considered valid for all tolerances not given in the drawings.

Checking method for subjective defects.

The subjective defects are assessed as for the following requirements.

The defects that are not visible in this way are no more considered as such.

Position of the door: assemblage position (vertical)

Light: diffused lighting, standard daylight (D65) or with fluorescent lighting with temperatures between 4000-6500°K

Checking angle: 0-90° as to the surface

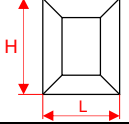

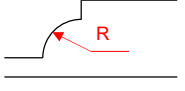
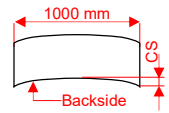
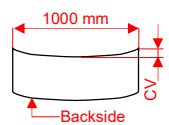
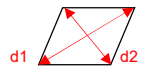
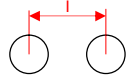
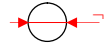
Distance of the door: 700 mm

Length of the proof: 10 seconds

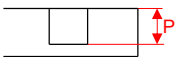
For the colour evaluation it is necessary to put both master sample and production sample to ambient light minimum 24 hours previous to the evaluation.

This rule is binding and valid also for the standard instrumental color

2) Dimensions

N°	Tolerance description	Nominal value	Tolerance	Visual reference
1	Dimension of doors (length L, height H)	a) ≤ 850 mm b) > 850 mm c) > 1.400 mm	a) $\pm 0,5$ mm b) $\pm 0,7$ mm c) $\pm 1,2$ mm	
2	Thickness (Sp)		$\pm 0,3$ mm	
3	Radius (R)	a) < 10 mm b) ≥ 10 mm	a) $\pm 10\%$ b) $\pm 5\%$	
4	Shape of profile	$\pm 0,3$ mm from the drawing		
5	Camper given by the curvature (delivery's status): is always measured on the total length of the front. Measuring method: The measurement shall be carried out under normal room atmosphere conditions on the hollow side. The part shall be laid on a long edge during the measurement, parallel to the direction of the measuring instrument. The measuring rule must be longer than the long side of the part to be measured. The max. total drawing of the part shall be determined and converted to the reference dimension of 1 m. The tolerances are valid for dimensions until a maximum of 1400mm; for higher dimensions the tolerances must be agreed.	Convexity (CS) (door concave towards outside)	$\leq 1,5$ mm/m	
		Concavity (door concave towards inside)	$\leq 1,5$ mm/m	
6	Angulation (Ag): Measured on the difference between the diagonals (value Ag=d1-d2)		1mm/ml	
7	Drillings' axis- distance of drillings and millings (l)		$\pm 0,7$ mm	
8	Drillings' diameter/millings' width (-)		- 0 mm + 0,7 mm	

3) Surfaces

N°	Tolerance description	Nominal value	Tolerance	Visual reference
9	Drillings' and millings' depth (P)		- 0 mm + 0,7 mm	
10	Other heights that are not above mentioned and not indicated in the drawings.		± 0,7 mm	
11	Exclusions: tolerances described at the section 2 are valid for all flat/straight products (i.e. door/drawer, frame, glass frame, panel, upright, shelf, table, side, top, bottom ...) with a maximum size of 1400mm. For all products with higher sizes and for special products (curved door, curved frame ...) tolerances should be agreed in advance.			

N°	Characteristic	Tolerance
1	Color: a) plain light colored (white) b) plain middle colored (beige-magnolia) c) plain dark/deep colored (red – black) d) printed/wood e) special (metallic, ...) The measurement is possibly made with an instrument sphere with geometry T/8° and enlightening (D65/10°).	a) $\Delta E \leq 0,5$ con $\Delta L < \pm 0,3$, $\Delta a < \pm 0,3$, $\Delta b < \pm 0,3$ b) $\Delta E \leq 0,6$ con $\Delta L < \pm 0,35$, $\Delta a < \pm 0,35$, $\Delta b < \pm 0,35$ c) $\Delta E \leq 1,0$ con $\Delta L < \pm 0,7$, $\Delta a < \pm 0,5$, $\Delta b < \pm 0,5$ d) master sample and limit-mark samples are defined by INNOLAC and stored at its premises. e) the tolerances must be agreed. A visual assessment can be made at standard daylight (D65). An assessment on metamerism can be made at fluorescent lighting (F...).
2	Glossiness: a) < 15 gloss b) $\geq 15 \leq 30$ gloss c) > 30 gloss The measurement is made with an angle of incidence of 60°.	a) ± 3 b) ± 5 c) ± 7 The tolerance refers only to finished foils.
3	Surface finishing	Any differences of the finishing (surface, print of the decorative, etc..) from the master sample have to be defined through limit samples.
4	Technical characteristics of lacquered surfaces	Depending on finishing, as per technical Specification available on request.
5	Technical characteristics of ennobled surfaces	Depending on finishing, as per technical Specification available on request.

4) Defects on surface

N°	Defect	Surface (including edges)	Reverse
1	Scratches, paint drippings, soilings.	Not accepted.	Not accepted.
2	Lacquer detachment, progressive disintegrations, peeling off or melamine fissures.	Not accepted.	Not accepted.
3	Dents, protuberances and dots (slightly identifiable to touch).	On matt, or printed material: max Ø1 mm: - on doors until 0,3 m ² : 1 defect; - on doors over 0,3 m ² : 2 defects. On gloss material: max Ø1,5 mm: - on doors until 0,3 m ² : 3 defect; - on doors over 0,3 m ² : 5 defects.	Accepted max Ø2 mm.
4	Filling (with suitable putty)	Not accepted.	Accepted max Ø2 mm
5	Open glued joints, flaking, burred edges	Not accepted.	Not accepted.
The assessment has to be made following the indications at point 1 (checking method for subjective defects).			

5) Support and working process

N°	Characteristic	Tolerance
1	Formaldehyde emission.	The bearer/core material shall keep the limits with respect to formaldehyde emissions, according to EN 120, perforator-method 8mg/100g (EN 717-1 climate chamber 0,1 ppm max.).
2	Odour emission	The supplied materials will be hygienically exemplary devoid of unacceptable and irritating odour emissions.
3	Quantity tolerance.	In order to grant ordered quantities, during productions, the order will be increased of 10% with a minimum of 5 pieces each dimension and each colour.

6) Stability at climatic conditions

N°	Characteristic	Tolerance
1	Stability climatic conditions: resistance of edgebanding to heat. N.B.: Only valid for intact items edgebanding of INNOLAC, without holes, grooves and open surfaces sectors.	For the ascertainment of heat resistance the valid test follows the measurement method UNI9242+A1 (4hours at 50°C, 4hours at 60°C, 4hours at 70°C with evaluation at each temperature step At temperatures of 50°C and 60°C the edge is undamaged. At the temperature of 70°C is permitted: - 0,2mm max shrinkage of the foil for 80% of the probes; - 0,7mm max shrinkage of the foil for the rest of the probes. Higher temperatures are normally not considered

7) Packaging Storing and conservation

N°	Characteristic	Tolerance
1	Packaging	Packaging is made according to the General Specification about pallet and packaging. Different method should be valued and agreed in advance.
2	Storing and conservation.	The materials have to be stored in closed premises, at an environmental temperature between 14°C and 28°C, with a maximum humidity of 55%. The materials have to be protected from direct sunlight. Protected surfaces: the protection film has to be removed within 6 months from delivery and in any case immediately at installation.

8) Cleaning of the product

N°	Characteristic	Activity
1	Cleaning of the product.	Products must be cleaned using microfiber or soft and clean clothes. Do not use abrasive clothes neither similar or dirty clothes. Do not use cleaner, alcohol, solvents and other acid or alkaline products. To clean the surface we suggest a soap/water solution with a proportion of 1:100. Dampen the soft cloth on this solution and then rinse the surface using slightly warm water and wipe it. Do not clean the product using vapour spray or similar or hot water.
2	Cleaning of the product with protection film.	If there is a protective foil, peel it off using a nail in order to raise it, starting from a door's edge. It is suggested that the products are cleaned just after peeling off the protection film following the above mentioned instructions.

9) Compulsory requirements

We point out that it is duty of the client to inform us about any compulsory requirement which is necessary for the land of destination and for the use of the product; this obligation is also valid for any other technical/safety requirement which might differ from the above mentioned ones.

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ID documento	Revisione	Prep. / Verifica	Approvazione	Data approvazione	Pagine
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