

## IKEA's surface resistance tests: FAQs

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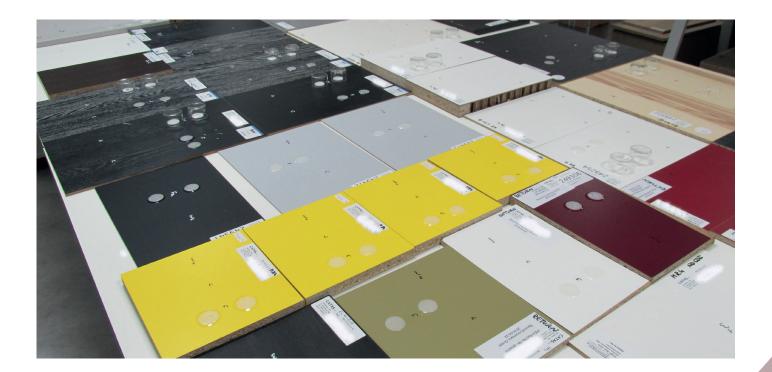
ereafter is a list of the most frequently asked questions by our customers from the IKEA world.

We hope that our answers will clarify some doubts, and we do encourage those who still have questions, to write to us: we will reply to everyone.

Q: Why the test report of cold liquids test gives sometimes two different ratings for the same test?

A: Each substance is applied to 2 different spots of the test area, so as to take into account as much as possible the heterogeneity of the surface. It might well be, that one spot reacts differently from the next one to the same stress. This is especially true for lacquered veneers with an open pore, but also for melamine paper featuring micro-defects (holes, cuts), through which the test liquid might penetrate. For this reason, it is possible to have 2 different ratings in 2 different test zones.

Q: In the case of different ratings for the same test liquid, which one should be considered?A:In order to pass the test, both ratings must meet the requirement specified for the test.





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**Q**: In which case paraffin oil is not applied onto the scratch in IOS-TM 0002/2 Resistance to fat on surfaces with scratches?

**A**: Paraffin oil is applied onto the scratch to show if the cut through the coating is deep enough to reach the wood substrate. The measure of the spread of fat across the scratch and underneath the coating determines one criteria for pass or fail.

#### However:

- a. With pigmented lacquers it is not possible neither to observe nor to measure the spread of fat underneath the coating film, therefore this requirement does not apply. The only requirement for pigmented lacquers is that the width of the scratch be  $\leq$  0,5 mm.
- b. With coverings (paper, plastic films) there is NO requirement for paraffin oil application. In addition, this test is required only for resistance class P1 and R0, where the only requirement is that the width of the scratch is  $\leq$  0,5 mm.
- c. Coverings with a top lacquer fall in case b), therefore the test is required only for resistance class P1 and R0, and the requirement to be met is that the width of the scratch is  $\leq 0.5$  mm.

**Q**: Why sometimes the scratch resistance test is not performed, in spite of the fact that the Technical Description (TED) specifies a requirement to Table 2.1.B?

A: The TED specifies general requirements for a certain resistance class, with no distinction for type of material nor for the finishing technology. The specifications for type of material (coated wood, lacquered board, faced board) are defined in the IOS-MAT 0066, where requirements and tests applicable to each type of material are listed. In particular, the scratch resistance test is not applicable to faced boards, except for class P1 and R0.

**Q**: Why sometimes the test fastness to rubbing is not performed, in spite of the fact that the Technical Description (TED) specifies a requirement to Table 2.1.A?

**A**: Like above, the TED specifies general requirements for a certain resistance class, while exceptions are defined in the IOS-MAT 0066.

In particular, the test fastness to rubbing, where the color transfer from a surface to a white cloth is assessed, is not applicable to white or clear coatings, where obviously no color transfer could ever be observed. Furthermore, this test is only required for coated wood/boards, but not for faced boards.



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- Q: Why sometimes the test fastness to rubbing is not performed on coated metal?
- **A**: Only with white coatings, for the reasons explained above, the test is not applicable.
- Q: Why sometimes the test scratch resistance is not performed on coated metal?
- A: Textured surfaces, as well as those with a gloss <15, are excluded from this test.
- Q: Is it necessary to perform the conditioning of samples before testing?
- A: Conditioning under controlled climate conditions (23°C, 50% humidity) allows for settling of the test panel after transport and/or storage in extreme environments. IKEA specifications require a minimum conditioning of 7 days, which is ALWAYS advisable to perform. If however, urgency reasons require to skip the conditioning, a note in the test report will inform on this fact.
- Q: Are there any specific requirements for the quantity and size of the test samples?
- **A**: Yes there are, sometimes very strict, due to the specific geometry of the testing equipment; less restrictive in other cases, still aimed at guarantee that the sample has a flat surface which is ample enough to carry out the tests according to specifications.
- **Q**: How to provide suitable samples, when the article to be tested does not have parts with the size and shape required for the test?
- A: The test sample should be preferably obtained by the article for which the test is demanded. However, for wired or tubular metal elements, or for coated wood details with a size and shape that are not compatible with the surface resistance test, it is allowed to prepare ad hoc samples, using the same substrate (steel, tin, beech, oak, etc.) and the same coating cycle as in the production of the article for which the test is intended.

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