

Influence and migration testing in drinking water

The water we consume can be affected by the substances used in its purification treatment and by the construction materials used in the installations that sustain it.



UPDATE OF ROYAL DECREE 140/2003 TO RD 03/2023

The 140/2003 Royal Decree that originally established the water quality sanitary criteria for human consumption has been updated by RD 3/2023 on January 2023. This new Decree establishes new parameters and limit values to meet higher quality and sanity standards.

Specifically, Article 44 of the RD requires the following basic hygienic requirements to be met:

- Not endangering, directly or indirectly, the protection of human health.;
- Not affecting the colour, odour or taste of the water.
- Not supporting microbial growth.
- Not migrating contaminants into the drinking water at levels higher than necessary for the intended purpose of the material or to worsen the quality of the water. Parametric values in Annex I of the RD should be avoided in all cases.

SPECIFIC REGULATIONS

These are the specific standards that regulate the influence of construction materials and products on water for human consumption:

- **EN 12873-1:2014.** Influence of migration. Part 1 establishes the test method for industrially manufactured materials, except metallic materials and cement-based materials.
- **EN 14944-3:2008.** Influence of cement-based materials on water intended for human consumption. Part 3 establishes the test methods for testing the migration of substances from cement-based materials.

TESTS OF INFLUENCE ON DRINKING WATER

In our laboratories we test the following materials under RD 03/2023 specifications:

- Paint
- Mortars and coatings
- Sealants
- Pipes
- Waterproof materials

Our technicians carry out chemical tests to analyse and determine whether the water is capable of absorbing building elements when they are in contact.

Building material manufacturers for water operations must submit their products to these tests on a mandatory basis and comply with current regulations to ensure the proper health conditions of water fit for human consumption.

These tests are complementary to the characterisation tests that are conducted each product, for example, those that pertain mechanical, physical and dimensional properties and general performance.