

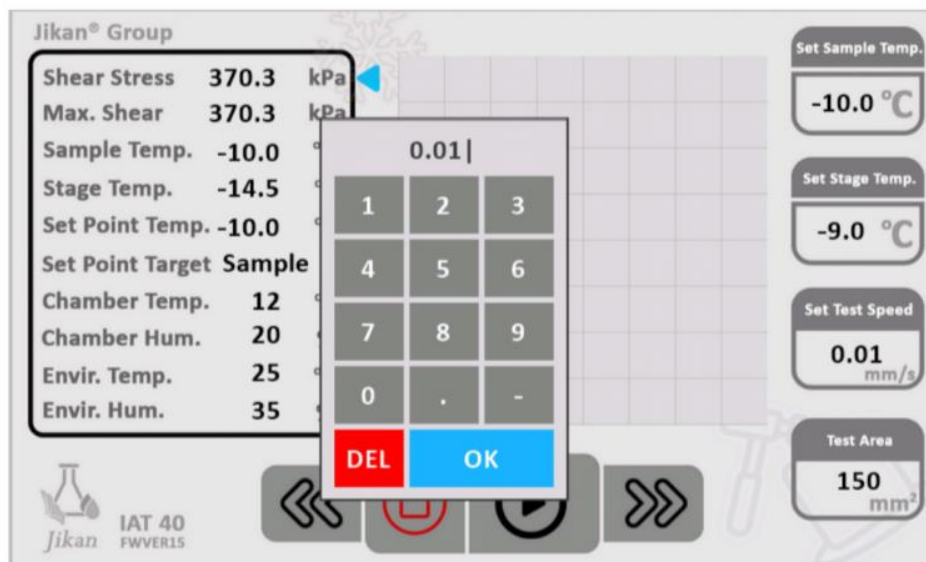
## Ice Adhesion Testing Service

Our Ice Adhesion Test Machine provides specialized testing services to evaluate the ice adhesion properties of various surfaces. This critical service measures the shear stress required to detach ice from a surface, offering essential insights into the effectiveness of anti-icing coatings and materials. The data obtained from this test is invaluable for industries aiming to improve surface performance, particularly in environments where ice adhesion poses significant challenges.

The ice adhesion test begins by placing the sample inside the testing chamber. A mold is then positioned on the sample to define the ice formation area. The sample's temperature is gradually lowered within the chamber to facilitate controlled ice formation. Using a syringe pump, water is gently introduced into the mold. The water is allowed to freeze completely. A controlled force is then applied to the mold and this ensures accurate measurement of the force required to shear the ice from the surface.

This test is crucial for industries where ice adhesion can impact performance, such as in aerospace, automotive, energy, and infrastructure sectors. The ability to evaluate and optimize anti-icing coatings and materials is vital for improving safety and efficiency in these areas.

The Ice Adhesion Test Machine operates with high precision, ensuring reliable and repeatable results. The machine's ability to control temperature, water injection, and force application provides comprehensive data on ice adhesion properties.



User interface of the device for assessing ice adhesion.

## Sample Requirements:

- **Minimum Sample Dimensions:** 10 mm × 10 mm × 1 mm
- **Maximum Sample Dimensions:** 40 mm × 40 mm × 5 mm
- **Material Compatibility:** The sample material must withstand freezing temperatures without deforming or cracking. It should also be capable of maintaining structural integrity during the application of shear stress.
- **Surface Preparation:** Samples should be prepared with any coatings or treatments that are being evaluated. The surface must be clean and free from contaminants to ensure accurate measurement of ice adhesion properties.
- **Custom Testing:** For samples with unique shapes, sizes, or materials, custom testing arrangements can be made with prior coordination. Special fixtures or molds may be required to accommodate non-standard samples.

Our ice adhesion testing service is tailored to meet the specific needs of industries dealing with ice-related challenges. By providing precise and reliable data, we help our clients enhance their surface treatments and materials, ensuring optimal performance in cold and icy environments. For more information or to discuss custom testing needs, please contact us directly.

For details about the test fees or if you have any additional questions, feel free to reach out to us at one of the numbers provided below.

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|-----------------------------------|--------------------|
| Phone numbers (Jikan):            | (+98) 21 8822 0801 |
| Mobile, Telegram, WhatsApp (Lab): | (+98) 992 196 9063 |
| Lab Specialist (Mr. Soltani):     | (+98) 912 566 8009 |