

## EXPLORERCASES Built stronger to last longer: "How do we test our cases"

| TEST   | SPECIFICATIONS                                | TEST DESCRIPTION   |
|--|---|--|
| IMPACT HORIZONTAL TEST   | STANAG 4280<br>DEF-STD 81-41 (Part 3 Issue 4) | The test is performed to demonstrate the ability of a case to withstand horizontal impacts at a velocity of 2.5 metres per second, simulating impacts in crane lifting, rail shunting and other violent movements of the transporting vehicle.  The case is positioned at a defined height with an additional weight inside and made it fall on both, left and right sides, on a flat and smooth concrete surface.   |
| IMPACT VERTICAL TEST   | STANAG 4280<br>DEF-STD 81-41 (Part 3 Issue 4) | The test is performed to demonstrate the ability of a case to withstand vertical impacts at a velocity of 2.5 metres per second.  The case is positioned at a defined height with an additional weight inside and made it fall on its rear, front, top and bottom sides, on a flat and smooth concrete surface.  |
| VIBRATION TEST   | STANAG 4280<br>DEF-STD 81-41 (Part 3 Issue 4) | The test is performed to demonstrate the ability of a case to withstand vibration over a frequency range 5 - 350 Hz.  the case is secured on the vibrating table, putting into vibration first the axis orthogonal to the plane, defined by the transport position, and then one of the other two axis, for the duration of 180 minutes for axis.  |
| DRY-HEAT TEST & LOW TEMPERATURE TEST   | STANAG 4280<br>DEF-STD 81-41 (Part 3 Issue 4) | <ul> <li>Dry-heat test: the test is intended to assess the effects of drying on the protective properties of the case.</li> <li>The test is carried out by putting the case inside the climatic chamber in the transport position, setting up a test activity with a temperature variation from 20 to 80 °C, and a percentage of relative humidity from 50 to 80% for a time period of 64 hours.</li> <li>Low temperature test: the test is intended to assess the effects of low temperature on the protective properties of the case.</li> </ul> |
| IMPACT VERTICAL TEST & IMPACT HORIZONTAL TEST AFTER DRY HEAT TEST & LOW TEMPERATURE TEST | STANAG 4280<br>DEF-STD 81-41 (Part 3 Issue 4) | At the end of the Dry-heat test and Low temperature test, the Impact tests (Impact vertical test and Impact horizontal test) are repeated.   |
| IP 67 CODE TEST  | CEI EN 60529                                  | <ul> <li>IP 6X CODE - No ingress of dust: the test is made using a dust chamber for a time period between 2-8 hours.</li> <li>IP X7 CODE - Temporary immersion in water: the test is made by completely immersing the case in 1 meter water, for 30 minutes.</li> </ul>  |
| STORAGE TEST   | STANAG 4280<br>DEF-STD 81-41 (Part 3 Issue 4) | The test is intended to assess the effects of the climatic protection provided by a case when stored in a temperate environment.  The test is carried out by putting the case inside the climatic chamber in the transport position, setting up a test activity with a temperature variation from -33°C (or -40°C) to +90°C, and a percentage of relative humidity not less than 90%, for a time period of 24 hours, repeating the cycle for 28 times.   |

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