

# WE HOLD BRIGADIER TO A HIGHER STANDARD: MILITARY.



Brigadier conquers life's everyday challenges. That's because we perform the same tests the military uses to certify that our phones are durable enough to not only make the grade, but also raise the bar.



## MILITARY-TOUGH DURABLE DESIGN

Brigadier is engineered to meet Military Standard 810G for protection against dust, shock, vibration, temperature extremes, blowing rain, low pressure, solar radiation, salt fog, humidity and water immersion. Plus its housing is reinforced for additional durability. Brigadier is tested to survive:

- Heavy dust for eight hours—bring on the dusty trail
- Shock—dropped from 4 feet 26 times
- Horizontal, vertical, and sideways vibrations—for one hour
- Extreme temperatures of -4 degrees to 140° F (-20° to 60° C) for an operating unit for four hours—from snowboard trips to Death Valley hikes, don't sweat it
- Low pressure at 15,000 feet (4,572 meters) for one hour—higher than the tallest mountain peak in the lower 48 states
- Solar radiation exposure of 1120 W/m<sup>2</sup> for 200 hours—you might need sunscreen, but Brigadier doesn't
- Exposure to heavy salt fog—two consecutive cycles of 24 hours of exposure and 24 hours of drying
- High humidity—10 straight days in 95% humidity
- Water—total immersion for up to 30 minutes in up to 6 feet (1.8 meters) of water\*

\*Phone is inoperable under water and should be dried as quickly as possible when wet. To ensure your phone is waterproof, make sure the port covers are always sealed and properly seated.

## MILITARY STANDARD 810G TESTING AND IP RATING

Water Immersion	MIL-STD 810G, Method 512.5 Procedure I	Non-operating unit immersed at 3.28 feet (1 meter) depth for 30 minutes
	IPX8	Non-operating unit immersed at 6 feet (1.8 meters) depth for 30 minutes
Blowing Rain	MIL-STD 810G, Method 506.5 Procedure I	Each phone face exposed to a rainfall rate of 4 inches (10 meter) per hour, 40 mph wind for 30 minutes
Water Jet	IPX5	Non-operating unit sprayed for 3 minutes with a 6.3 mm nozzle, 2.5 mm from unit
Drop	MIL-STD 810G, Method 516.6 Procedure IV	Non-operating unit dropped 4 feet (1.22 meters) 26 times
Dust	MIL-STD 810G, Method 510.5 Procedure I	Exposed to heavy dust for 6 hours
	IP6X	Exposed to heavy dust for 8 hours
Vibration	MIL-STD 810G, Method 514.6 Procedure I, Category 24	Non-operating unit vibrated horizontally, vertically and sideways for 1 hour
Salt Fog	MIL-STD 810G, Method 509.5	Non-operating unit exposed to salt fog for 2 cycles; each cycle included 24 hours exposure to salt fog followed by 24 hours drying time
Humidity	MIL-STD 810G, Method 507.5 Procedure II	Non-operating unit exposed to 95% humidity for 10 days
Solar Radiation	MIL-STD 810G, Method 505.5 Procedure II	Non-operating unit exposed to solar radiation at 1120 + 47W/m <sup>2</sup> (300~3000 nm) for 10 cycles; each cycle included 20 hours irradiance and 4 hours darkness
Low Pressure	MIL-STD 810G, Method 500.5 Procedure II	Operating unit exposed to low pressure (equivalent to altitude of 15,000 feet/4,572 meters) for 1 hour
High Temperature	MIL-STD 810G, Method 501.5 Procedure II	Operating unit exposed to 140°F (60°C) for 4 hours
Low Temperature	MIL-STD 810G, Method 502.5 Procedure II	Operating unit exposed to -4°F (-20°C) for 4 hours
Functional Shock	MIL-STD 810G, Method 516.6 Procedure I	Non-operating unit exposed to three shocks in each of six directions, for total of 18 shocks

