

G FRAGILITY RATING GUIDE



DISCOVER THE LEVEL OF PROTECTION NEEDED

This guide will help you understand the G Fragility Rating of your sensitive equipment and the protective solutions you may need in order for it to travel.

The fragility of an item is normally expressed in “G” units. G units are a measure of the force exerted on bodies by the earth’s gravitational pull. Products with a larger g-force rating require less protection from shock and vibration.

CLASSIFICATION	FRAGILITY (shock and vibration levels)	
EXTREMELY SENSITIVE Inertial Navigation Equipment (Gyroscopes)	12 - 18 G's	FRAGILE ↑
VERY DELICATE Electro-Optical (101-152 mm) Precision Test Equipment	18 - 25 G's	
FRAGILE General Electro-Mechanical Medical and Biological Diagnostic Tower computers, Color TV Cameras High End Rack Mount Electronics, Printers	25 - 50 G's	
MODERATELY FRAGILE Solid-State Circuit Electronics Radar and Microwave Antennas Audio-Visual Projectors, Aircraft Engines General Rack Mount Electronics	50 - 80 G's	
RUGGED PC Boards, PC Monitors, Refrigerators, Microwave Ovens, Control & Metering Valves Cameras, Emergency Rescue Gear	80 - 120 G's	
VERY RUGGED Most Small Appliances, Pelican Flashlights, Tools, Guns	120 G's and Up	
CELL PHONE	300 G's	RUGGED ↓

PELICAN CUSTOM CASE SOLUTIONS

With experienced premium materials, design engineers, and testing labs, our Pelican Custom Case Solutions Team can help you determine the G Fragility rating of your equipment and recommend or build a case that gives you complete peace of mind.

Learn more at www.pelican.com/custom.

FRAGILE-EXTREMELY SENSITIVE

Equipment from 25-12 G's are extremely delicate and cannot withstand shock or vibration. Look to protect your equipment in a case with cylindrical or rubber block rubber block shock mounts to isolate equipment from vibration and shock. Sway space will decelerate shock forces and provide airflow. Since these items vary widely in their fragility, we would recommend a custom case to protect.



MODERATELY FRAGILE

Equipment in this from 50-80 G's will need protection from vibration and shock, however, since the G Fragility rating is moderate, you may want to consider an “off-the-shelf” solution that would allow you to deploy quickly while still protecting the payload.



VERY RUGGED – RUGGED

Equipment in this category may not need heavy shock mounts, so choose a lightweight travel solution that will protect your equipment from the basic elements. Custom foam interiors may be a good protective solution for this type of equipment.

