

Trevor Sales Ltd.

# **Glossary**

Carry & Protect

# Glossary

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## Materials:

**ABS:** Acrylonitrile Butadiene Styrene, a common thermoplastic with good impact resistance even in low temperatures, good chemical resistance as it is not affected by water, non-organic salts, acids and basics. The material is stiff, and the properties are kept over a wide temperature range.

**Accuform Foam:** *See Pick and Pluck Foam.*

**ALKO:** A German made rubber torsion axle used on our trailers.

**Astraboard:** Strong and lightweight twin walled **Polypropylene**.

**Brushed Nylon Faced Foam:** An **Open Cell Foam** covered with Brushed **Nylon** cloth usually used for enhanced presentation purposes.

**Closed Cell Foam:** A solid foam impervious to moisture. Includes: **Plastozote**.

**Copolymer Resin:** A plastic used in waterproof/dustproof case construction. Extremely strong and resistant to chemicals.

**Cubed Foam:** *See Pick and Pluck Foam.*

**Eggbox Foam:** *See Profile Foam.*

**Hex Board:** Laminated Plywood used for flight cases. Very strong but can be heavy.

**HLB Foam:** A type of **Open Cell Foam**.

**Matrix Foam:** *See Pick and Pluck Foam.*

**Nylon:** A thermoplastic also known as Polyamide (PA), it has good abrasion resistance, low friction coefficient, good resistance to heat and good impact resistance. It is resistant to most oils and grease and its resistance to most commonly used solvents is also good, but its resistance to acid and basics is limited.

**Open Cell Foam:** A soft foam, it will absorb moisture, has good cushioning properties.

**Pick and Pluck Foam:** A manufacturer supplied partially cut foam, usually in small cubes; ideal for one off items, irregular shaped equipment. Ideal for individuals to customise.

**Plastozote Foam:** A **Closed Cell Foam**, it is resistant to moisture and especially effective with heavy loads.

**Polyamide (PA):** *See Nylon.*

**Polymer:** The actual name for plastic (plastic is a property of the material – the opposite of elastic).

**Polypropylene (PP):** A lightweight thermoplastic that has a high stiffness, good strength even in relatively high temperatures, abrasion resistant, good elastic properties and a hard glossy surface. In low temperatures PP gets brittle (< 0°C). It is also resistant to inorganic chemicals and water. It is resistant to most strong mineral acids and basics.

**Profile Foam:** Also called Eggbox foam. Usually fitted in case lids. Used to accommodate equipment with differing thickness/profile. E.g. fitted in lid/base of gun case will keep gun and accessories in place without the need for intricate cutting and layering.

**Self-Customised Foam:** *See Pick and Pluck Foam.*

## Torches:

**Halogen Bulbs:** *See Incandescent Bulbs.*

**Incandescent Bulbs:** A type of bulb that works by passing an electrical current through a thin filament to produce light (and also heat). The filament is encased in an airtight bulb filled with a low pressure inert gas such as: - Halogen, Krypton and Xenon. This prevents oxygen reaching the filament, destroying it. These bulbs are very bright but consume power quickly.

**Krypton Bulbs:** *See Incandescent Bulbs.*

**Lamp Module:** A self-contained head unit incorporating the bulb.

**LED Bulbs:** A type of bulb that works by passing an electrical current into a diode to produce light. These bulbs are less bright than **Incandescent Bulbs** but do not consume a lot of power (battery life is up to 15 times longer than with **Incandescent Bulbs**).

**Lithium Torches:** These torches use a battery with a lithium based anode that produces up to twice the voltage of standard zinc-carbon and alkaline batteries.

**Lumens:** It is a measure of how much light is perceived to be produced by the torch (the higher the lumens the brighter the torch).

**Rechargeable Torches:** A torch provided with wall / dashboard mounted charging units.

**Recoil LED:** An **LED Bulb** that is directed backwards towards the torch body then reflected forwards. The reflection allows all the light produced by the bulb to be concentrated to produce a brighter more focused beam of light. These bulbs are as bright as **Incandescent Bulbs** but with the minimal power consumption of standard **LED Bulbs**.

**Watts:** A measure of how much energy per second is used by the torch (the higher the energy use per second the shorter the torches battery life will be).

**Xenon Bulbs:** *See Incandescent Bulbs.*



## Certificates:

**ATA 300:** Air Transport Association design requirement relating to the design, development and procurement of effective packaging for supplies and equipment shipped by an airline. The tests involved with becoming **ATA 300** compliant are conducted to ascertain if a shipping case will withstand the rigours of being shipped a minimum of 100 times. **ATA 300** also specifies that the case will have recessed handles that will not break during transit.

**ATEX:** Directives relating to explosive workplaces, ATEX directives in this catalogue relate to equipment and protective systems intended for use in potentially explosive environments.

A typical ATEX classification is presented as follows: -

  II 3 GD EEx nL IIC T4 Tamb

Code	Meaning
	CE means CE mark permitted by the European Committee for the Electromechanical Standardization
	Ex inside the Hexagon means "Protection against the Explosions"
II	'II' means Group 'II' equipment = Not for use in Mines. or 'I' means Group 'I' equipment = For use in Mines.
3	Means ATEX Category (Old zone rating): - 3 Can be used in zone 2 environments. or 2 Can be used in zone 1 environments. or 1 Can be used in zone 0 environments.  <i>See also <b>Zone (Rated)</b>.</i>
G	G means tested for gases and vapours
D	D means tested for dusts
EEx	EEx means equipment tested under the latest European Harmonised Standard for use in Explosive atmospheres
nL	nL is a protection concept symbol, (in that case Non-sparking)
IIC	Gas Grouping (Acetylene & Hydrogen)
T4	T (1, 2, 3, 4, 5, 6) is the equipment classification by its surface maximum temperature: -  T1=450°C T2=300°C T3=200°C T4=135°C T5=100°C T6=85°C
Tamb	Ambient temperature range in service (Standard between -20 & +40°C not needed to show)

**IP (Rating):** IP = Ingress Protection

Classifies the level of protection a product provides against the intrusion of: -

1. Solid objects or dust.
2. Accidental contact.
3. Water.

The first digit in a rating covers points 1 and 2 and the second covers point 3: -

1<sup>st</sup> Digit

Rating	Protected Against	Details
0	-	No protection
1	> 50mm	Protection against accidental contact with large body surfaces, such as the back of the hand.
2	>12.5mm	Protection against accidental contact with body surfaces, such as fingers.
3	>2.5mm	Protection against tools and thick wires.
4	>1mm	Protection against most wires and screws.
5	Dust protected	Dust entering unit will not affect performance and total contact protection.
6	Dust tight	No ingress of dust and total contact protection.

2<sup>nd</sup> Digit

Rating	Protected Against	Details
0	Not Protected	-
1	Dripping Water	Vertical falling drops will have no effect.
2	Dripping Water with up to 15° tilt	Vertical falling drops will have no effect when equipment is tilted up to 15° from normal position.
3	Spraying Water	Water falling as a spray at up to 60° from the vertical will have no effect.
4	Splashing Water	Water splashing from any direction will have no effect.
5	Water Jets	Water projected by a nozzle from any direction will have no effect.
6	Heavy Seas	Water from heavy seas or projected from powerful jets will have no effect.
7	The Effects Of Immersion	Water in harmful quantities will not enter when equipment is immersed in water under defined conditions of pressure and time.
8	Submersion	Equipment can be fully submerged in water under conditions specified by the manufacturer.

**MIL STD:** US military standard.

In this catalogue all MIL STD certificates relate to storage and transportation methods.

Equipment holding this certificate have passed testing under the following conditions to US military standards: -

1. Vibration
2. Dry temperature
3. Low heat
4. Impact

**STANAG:** NATO standard.

In this catalogue all STANAG certificates relate to storage and transportation methods.

Equipment holding this certificate have passed testing under the following conditions to NATO standards: -

5. Vibration
6. Dry temperature
7. Low heat
8. Impact

**Zone (Rated):** Old Classification, *See also ATEX.*

Potentially explosive environments are split into 3 zones: -

<b>Zone</b>	<b>Description</b>
0	Flammable atmosphere highly likely to be present - may be present for long periods or even continuously.
1	Flammable atmosphere possible but unlikely to be present for long periods.
2	Flammable atmosphere unlikely to be present except for short periods of time - typically as a result of a process fault condition.

If equipment is given a Z0 rating it is capable of operating in zones 0, 1 and 2.

If equipment is given a Z1 rating it is capable of operating in zones 1 and 2.

If equipment is given a Z2 rating it is capable of operating in zone 2 only.

**Construction:**

**Blow Moulded Cases:** A technique for forming hollow plastic objects by using air to 'blow' a heated pliable polymer onto a mould.

**CNC:** Computer Numerical Control, this technique relies on pre-inputted computer commands controlling a machine which sculpts/forms the product.

**Injection Moulded:** A technique for forming detailed plastic objects by injecting a molten polymer into a specially designed mould at a high pressure.

**Routed (Foam):** A technique for cutting foam using specially made drill bits.

**Tool Cut (Foam):** A technique for cutting shapes in foam using a pre-designed tool with precisely located blades. This method gives clean cut-outs. Effective on longer runs. Usually a one off tooling charge applies.

**Vacuum Formed:** A technique for forming hollow plastic objects by using air to 'suck' a heated pliable polymer onto a mould.

**Water Cut (Foam):** Method of cutting foam inserts using either water or water mixed with an abrasive material, under high pressure.

## General Terminology:

**Bespoke:** Made to customer's exact requirements.

**Bezel Kit:** *See Panel Mounting Kits.*

**Custom Built:** Made up from non-standard components.

**Dustproof:** Official classification. *See IP (Rating).*

**Free Issue:** Customer supplies components; e.g. cases supplied by customer for us to fit inserts.

**Full Flight Spec. Case:** A case made from faced plywood and with heavy duty recessed fittings.

**Insert:** Internal case fittings, i.e. lid organiser, foam sets, panel frames.

**Lightweight/Half Flight Spec. Case:** Made from Astraboard and fittings surface mounted.

**Micro Case:** Very small waterproof/dustproof case range.

**NATO Hitch:** type of tow hitch used for towing trailers fitted with Military type towing ring.

**Off the Shelf:** Standard product available without any modifications.

**Panel Frame Mounting System:** *See Panel Mounting Kits.*

**Panel Kits:** *See Panel Mounting Kits.*

**Panel Mounting Kits:** Inserts that enable mounting of interface panels within a case.

**Pressure Equalisation Valve:** *See Purge Valve.*

**Pressure Purge System:** *See Purge Valve.*

**Purge Valve:** Usually fitted to watertight/dustproof cases. Allows for easier opening of cases after pressure changes.

**Stock Item:** Available as standard.

**Submersible:** Can be immersed in water up to specified depth without damage

**Vortex Valve System:** *See Purge Valve.*

**Water Resistant:** Unofficial classification. Item capable of withstanding mild immersion in wet environments, i.e. shallow water, mud, rain, snow, etc.

**Waterproof / Watertight:** Official classification. *See IP (Rating).*