2022 A-Z Packaging Terminology

For all terms packaging-related that you might need to know, look no further.

It's all here, in one place

A

Abrasion Resistance: Abrasion Resistance is the endurance to the effects of repeated rubbing scuffing, scratching, wearing down, marring, or rubbing away.

Adhesive: Any material which is applied to form a bond between two other surfaces like glue.

Allocated Inventory: Materials that have been assigned to specific production orders in the future. These materials therefore cannot be used for other orders, so more stock needs to be obtained.

Angel Hair: Small slithers of packaging material which can sometimes remain on the finished product.

Antistatic: A form of protective packaging which prevents the build-up of static electricity reducing its effects to protect the items stored within.

Anti-Fog: Chemicals are applied to the product that prevent condensation of water in the form of small droplets on a surface that resembles fog.

Artwork: Illustrations or photographs that make up the logo or design that can be printed onto the container or applied using alternative methods during the manufacturing process.

Assembly: A series of workers and machines in a factory by which a succession of identical items is progressively assembled.

B

Banding: A banding machine will group numerous items together to allow them to be easily transported and handled.

Barrier Material: A material that is used in packaging to act as a barrier to eliminate items from penetrating such as liquids and gases.

Baseline Performance: A benchmark that sets the standards that any future testing can be compared to.

Bevel: A bevel is where the edge of a container is not a 90 degree angle, it is often used to produce a softer edge for safety.

Biodegradable: A substance that is capable of being decomposed by bacteria or other living organisms and thereby avoiding pollution and is considered as being eco-friendly.

Blow Moulding: A manufacturing process for forming and joining together hollow plastic parts, there are three main types of blow moulding: extrusion blow moulding, injection blow moulding, and injection stretch blow moulding.

Bonding: The function of joining two or more things securely, by means of an adhesive substance, heat, or pressure.

BPA: *BPA* stands for bisphenol it is an industrial chemical that has been used to make certain plastics and resins since the 1960s. *BPA* is found in polycarbonate plastics and epoxy resins. Polycarbonate plastics are often used in containers that store food and beverages, such as water bottles.

Branding: A name, design and symbol which identifies a company or product (a brand).

BRC: The British Retail Consortium, the company was founded in 1996 by retailers who wanted to harmonize food safety standards across the supply chain. BRC publish a family of standards referred to as BRC Global Standards and BRC certification is certified compliance with one of these standards.

Budget: A lower cost range that is similar to our standard product range but may not have all the features e.g. different tab sealing method.

BULK: Containers that are sold in larger volumes and are often delivered on pallets as opposed to single boxes.

C

CAD: Computer-aided design (CAD) is the use of computers (or workstations) to aid in the creation, modification, analysis, or optimization of a design.

CAM: Computer Aided Manufacturing (CAM) is the use of software and computer-controlled machinery to automate a manufacturing process

Capacity: The volume of space a container can hold internally.

CC: A Cubic centimetre is a unit for measuring volume, 1 cc is equal to 0.0338 ounce.

CDA: A Confidential Disclosure Agreement [(CDA); is also referred to as non-disclosure agreement (NDA). It is a legal agreement between a minimum of two parties which outlines information the parties wish to share with one another for certain evaluation purposes but wish to restrict from wider use and dissemination.

Clean Room: An environment free from dust and other contaminants, used chiefly for the manufacture of products.

Closed Loop System: An industrial system that is a set of mechanical or electronic devices that automatically regulates a process variable to a desired state or set point without human interaction that has zero-waste chain supply and reuses and recycles or composts any unused materials.

CNC Routing: A computer numerical control (CNC) router is a computer-controlled cutting machine which typically mounts a hand-held router as a spindle which is used for cutting various materials.

Combi Pack: A box that contains equal number of containers and lids.

Coatings: A thin layer or covering that is applied to protect its contents, these can be, anti-abrasion, anti-corrosive or waterproof.

Coldset PVA: An adhesive that can be either a liquid or solid, it becomes a liquid when heated to 60 degrees or above but starts to become a solid when exposed to a cooling temperature of 20 degrees.

Conductive: Conductive packaging has a very low surface resistivity that prevents or limits the flow of electrons across its surface offering protection against an electrostatic discharge.

Containers, Hinged Lid: A container that has a lid attached which is hinged.

Containers, Shipping: A container that is used specifically for shipping.

Contract Packaging: A company that provides a service packaging containers by either unloading or loading them into different quantities than how they were packed during the manufacturing process. This also applied to filling the products with food.

Copolymer: A copolymer is a polymer derived from more than one species of monomer. The polymerization of monomers into copolymers is called copolymerization. Copolymers obtained by copolymerization of two monomer species are sometimes called bipolymers.

Copolymer Resin: Copolymer resins are a flexible, tough, and clear plastic material.

CQV: CQV (Commissioning, Qualification, and Validation) is a very detail-oriented process that requires the right mix of knowledge, experience, and diligence to correctly place equipment/systems into use

Crazing: The process of when fine cracks appear under the surface of plastic but the product is not fully broken.

Creep: When the product starts to deform when stress is applied.

Cushioning: Cushioning is used to protect fragile and sensitive items during transit to prevent damage from occurring

D

Digitally Printed: Digital printing is a method of printing from a digital-based image directly to a variety of media. It usually refers to professional printing where small-run jobs from desktop publishing and other digital sources are printed using large-format and/or high-volume laser or inkjet printers.

Digitisation: The process of converting information from a physical format into a digital one. When this process is leveraged to improve business processes, it is called *digitalisation.*

Dimensions: A measurement of length in one direction that would be either length, depth or height.

Direct Food Contact: When food comes into physical contact with another material.

Disposal: What happens after a product has finished its intended purpose (end of life) this could be recycling, recovery, compositing or reuse.

Distributors: An agent who supplies goods or merchandise to a retailer, distributors normally do not produce goods but instead act as a reseller.

Drop Test: A test of the strength of an object, in which it is dropped under standard conditions or a set weight is dropped on it from a given height.

Dunnage: Dunnage is inexpensive, or waste material used to load and secure cargo during transportation.

E

E-commerce: The process of buying and selling of goods and services over the internet.

E-commerce Ready Packaging: A set of criteria set forth by warehousing company (Amazon being one them) that regulates the size, efficiency of the package, and the protection it provides to the product.

Electrostatic Decay Rate: The decay rate of an electrostatic charge.

Emboss: Emboss means to mould or stamp on the surface or object so that it stands out in relief.

Emulsions: A type of paint consisting of pigment bound in a synthetic resin which forms an emulsion with water.

Environment Agency: The Environment Agency (EA) is a non-departmental public body, established in 1995 and sponsored by the United Kingdom government's Department for Environment, Food and Rural Affairs (DEFRA).

ESD: The sudden flow of electricity between two electrically charged objects caused by contact; an electrical short, or dielectric breakdown.

ESD Anti-static: An electrostatic dissipative coating is a surface protection substance used in conductive materials on substrates that can produce electrostatic charges through a conductive surface, within a resistance range (105 to 109 ohms).

ESD Shielding: The means to prevent the electric field from a static charged object from penetrating. The shield itself can be charged, but inside, no electric field will exist. A component inside an electrostatic shielding container is safe from the electrical fields associated with static..

Estimate: An approximate calculation or judgement of the value, number, quantity, or extent of something.

Extrusion: Is a technique where molten polymer is formed through a die to produce components of a fixed cross sectional area such as rods as tubes.

F

Fabrication: The action or process of manufacturing an item.

Falling Dart Impact: A traditional method for evaluating the impact strength or toughness of a plastic film. This test uses a single dart configuration and a single drop height, while varying the weight of the dart

Faraday Cage: An enclosure used to block electromagnetic fields. formed by a conductive material or mesh.

Fatigue: The weakening of a material caused by repeated impact or stress.

Feasibility Study: An assessment of the practicality of a proposed plan or method.

Finish: The coating or print applied to a product that has almost completed the manufacturing process, this can be anti-corrosion as an example.

First Drop: The first drop of many when testing the packaging strength. A product is prone to being protected on the first drop but as more drops as performed the package may be less protected and damage may occur.

Flatbed Die Cutting: The process of cutting or perforating the desired shape out of material using a die that is firmly pressed direct on top the material.

Flood Coat: Refers to any coating that covers the entire surface of a product and is mainly applied as a liquid.

Food Specific: Relevant to a particular kind of food.

Freezer Grade: A product that can withstand temperatures as low as -32°c.

FreshPAK: A series of square containers that are suitable to be top sealed that are exclusive to Systempak.

FSA: A non-ministerial government department of the Government of the United Kingdom. It is responsible for protecting public health in relation to food in England, Wales and Northern Ireland.

Fulfilment: The delivery process used to move a product from its point of sale to the hands of the customer. for example a third party warehouse handling the company inventory service.

G

GastroPAK: A series of rectangular containers that are suitable to be top sealed that are exclusive to System-pak.

Gravure Printed: The process in which the image to be printed consists of depressions or recesses on the surface of the printing plate. The printer then covers the plate with ink and wipes the ink from the higher surface, leaving the depressions, or areas that have now, been filled with ink.

GSM: An acronym for the measurement of grams per square meter.

H

HDPE: High-density polyethylene or polyethylene high-density is a thermoplastic polymer produced from the monomer ethylene. It is often chosen for blow moulding because of it's stress crack resistance, chemical resistance and stiffness.

Heat Resistance: A substance that is not easily burned or melted.

Heat-Seal: A method of sealing two or more surfaces together. Heat can join either two similar materials together or can even join materials which are dissimilar with a thermoplastic layer. The method is controlled under temperature and pressure conditions.

Hermetic Seal: Any type of sealing that makes a given object airtight and leak proof.

Hot Fill: Uses heat to sterilize both the product and its container during the food packaging process

I

Immersion Testing: To test a case to see how effective it is for protection against liquids, the item will be placed in water that is around a meter deep for approximately one hour to see how effective it is.

Impact Strength: The ability a package holds to withstand mechanical shock.

Inert: To have no power of action, motion or resistance, in effect something that is not reactive.

Injection Moulding: Injection moulding is a manufacturing process for producing parts by injecting heated softened plastic into a mould, which is then cooled which shapes the product.

Inline: Refers to die cutting machinery that is also able to incorporates printing. The packaging is cut and printed at the same time.

In-Mould Labelling: A process where pre-printed labels are placed in the mould before the plastic is injected into the mould, which then, does not require any additional postproduction decorating.

Internal Dimensions: The dimensions of the inside of a case or box, measured by width, depth, and height.

IP Rating: The IP Code, or Ingress Protection Code, sometimes referred to as International Protection Code, IEC standard 60529 classifies and rates the degree of protection provided by mechanical casings and electrical enclosures against intrusion, dust, accidental contact, and water.

ISO 14001: ISO 14000 is a family of standards related to environmental management that exists to help organizations minimize how their operations negatively affect the environment; comply with applicable laws, regulations, and other environmentally oriented requirements; and continually improve in the above.

ISO: An acronym for International standards organisation.

ISO 9001: The ISO 9000 family of quality management systems is a set of standards that helps organizations ensure they meet customer and other stakeholder needs within statutory and regulatory requirements related to a product or service.

ISTA: International Safe Transit Association (ISTA) is an organization focused on the specific concerns of transport packaging. ISTA is the leading industry developer of testing protocols and design standards that define how packages should perform to ensure protection of their contents during the ever changing risks of the global distribution environment.

J

JIT: Just-in-time manufacturing (JIT), also known as just-in-time production or the Toyota Production System, is a methodology aimed primarily at reducing times within the production system as well as response times from suppliers and to customers.

K

Kanban: Kanban is a scheduling system for lean manufacturing and just-in-time manufacturing where the supply chain is controlled in an inventory system.

L

Labels: A small piece of paper, fabric, plastic, or similar material attached to an object and giving information about it.

Laser Etching: The practice of using lasers to engrave an object. Laser marking, on the other hand, is a broader category of methods to leave marks on an object, which also includes colour change due to chemical/molecular alteration, charring, foaming, melting, ablation, and more

Lead Time: The time between the initiation and completion of a production process, in packaging terms this would be the time from the initial contract or order being placed and how long it takes the customer to receive their product.

Lid: A removable or hinged cover for the top of a container.

Light-Weighting: This is the process where the design of packages reduce material, reducing weight and cost in term, reducing the environmental impact.

M

Manufacture: To make something on a large-scale using machinery.

Material: The matter from which a thing is or can be made from.

Materials Handling: Material handling involves short-distance movement within the confines of a building or between a building and a transportation vehicle

Matte Finish: A coating that is applied to a product where the surface has no shine or gloss.

Metric: The employed standard of measurement.

Micron: A unit of length equal to one millionth of a metre, used in many technological and scientific fields.

Mission Critical: This is a process that is designated as imperative or essential to an organisation, which would cause it to fail if it is not employed.

ML: Commonly known as a millilitre a unit of capacity equal to one thousandth of a litre, and equivalent to 0.033815 fluid ounce, or 0.061025 cubic inch.

MLT: Measures how long it takes to complete a process from beginning to end. In manufacturing, lead time often represents the time it takes to create a product and deliver it to a consumer. Also known as manufacturing lead time.

MM: Millimeter is a metric unit of measurement.

Mobile Design: If an object cannot be manufactured with a design integrated, a designer may contact the customer to digitise the item with them.

Monomer: A molecule that can be bonded to other identical molecules to form a polymer.

MOQ: Means the minimum amount your customer has to order to be able to purchase the products, otherwise known as Minimum Order Quantity.

Mould Seam: A seam or groove that is produced during the manufacturing process, that may also be known as a parting line.

Multi Up: The way dies or presses are designed so that the press can use multiple designs at the same time. This is seen as a more cost-effective process, otherwise known as a composite.

N

Nesting Containers: These are containers that have sloped sidewalls so that they can be stacked in each other when they are empty, saving on space.

O

Offset Printing: Offset printing is a common printing technique in which the inked image is transferred from a plate to a rubber blanket and then to the printing surface. When used in combination with the lithographic process, which is based on the repulsion of oil and water, the offset technique employs a flat image carrier.

Ohm: The SI unit of electrical resistance, transmitting a current of one ampere when subjected to a potential difference of one volt.

Operational Temperature: An operating temperature is the temperature at which an electrical or mechanical device operates. The device will operate effectively within a specified temperature range which varies based on the device .

Output: The amount of something produced by a person, machine, or industry.

Overprint: Overprinting refers to the process of printing one colour on top of another in reprographics. This is closely linked to the reprographic technique of 'trapping'. Another use of overprinting is to create a rich black by printing black over another dark colour.

P

Packing: The process of placing an item into a packaging container.

Pallets: A pallet is a flat transport structure, which supports goods in a stable fashion while being lifted by a forklift, a pallet jack, a front loader, a jacking device, or an erect crane. A pallet is the structural foundation of a unit load which allows handling and storage efficiencies.

Pallet Boxes: Pallet boxes (sometimes also known as 'bulk boxes') are large robust corrugated boxes attached to wooden pallets.

PatêPAK: A series of containers that are suitable to be top sealed that are exclusive to Systempak ideal for patês.

PE: The acronym for Polyethylene.

Perforations: A small hole or row of small holes punched in a sheet of material, making it easier for customers to open.

Polycarbonate: a synthetic resin in which the polymer units are linked through carbonate groups. Polycarbonate materials are extremely tough, easily moulded and thermoformed.

Polyethylene: Polyethylene or polythene is the most common plastic in use today. It is a polymer, primarily used for packaging. It is the most commonly used plastic, that is clear in appearance, tough and unaffected by a large number of chemicals. It is measured in three classifications these are low density, medium density and high density.

Polymer: A substance which has a molecular structure built up chiefly or completely from a large number of similar units bonded together, e.g. many synthetic organic materials used as plastics and resins.

Polyolefins: A polyolefin is a type of polymer produced from a simple olefin as a monomer. Some common polyolefins are polypropylene and polyethylene.

Polypropylene: Polypropylene, also known as polypropene, is a thermoplastic polymer used in a wide variety of applications. It is stress free and crack free, used chiefly for films, fibres, or moulding materials

PP: The acronym for polypropylene.

Print-Your-PAK: The name for Systempak's labelling and printing services.

PU: A synthetic resin in which the polymer units are linked by urethane groups, used chiefly as constituents of paints, varnishes, adhesives, and foams, the acronym for polyurethane.

PVA Adhesive: Polyvinyl acetate is an aliphatic rubbery synthetic polymer with the formula, it is a type of thermoplastic.

Q

Quote: A packaging quote is made up of the following details, item required, unit price, quantity, total price, and customers details such as name and address.

R

Recyclable: A term used to describe packaging that can be processed for use again rather than as waste.

Reel: This is also known as a coil or spool. It consists of a cylinder that allows other materials to be wound onto for storage or transit.

Registration: This is used for when printing multiple colours on an item, it allows for a pattern or print to be applied in the correct position.

Reusable: This means packaging that can be used multiple times.

RFQ: An acronym known as Request for quotation, where a customer contacts us to requote for a quote for goods or services.

Rotary Die Cutting: A special kind of die cutting that uses a cylindrical die to cut shapes out of material. It moves around and around in a circular motion and has blades to cut out the desired shape around the entirety of the cylinder.

Rotational Moulding: Rotational moulding involves a heated hollow mold which is filled with a charge or shot weight of material. It is then slowly rotated, causing the softened material to disperse and stick to the walls of the mold.

Run: The number of items produced in one manufacturing session.

S

Sampling: This is creation of a single unit otherwise known as prototype to allow customer to see and approve before mass production is authorised.

Sealing Film: This is a film that is a applied to a product primarily a top seal container to act as a barrier to prevent foreign entities from entering and contaminating the contents within in essence sealing them in.

Sealing Machines: This is the machine that applies the sealing film to the containers it can either be operated mechanically or by hand.

Self Adhesive Labels: This is a small piece of material designed to be affixed to any surface such as a plastic container, by the action of a layer of adhesive on the front or back of the label.

Shelf Life: The length of time for which an item remains usable, fit for consumption, or saleable.

Shielding Layer: A conductive layer used to block electrostatic fields, this may also be known as Faraday cage.

Silk-Screening: Also known as screen printing is a printing technique where a mesh is used to transfer ink onto a substrate, except in areas made impermeable to the ink by a blocking stencil.

Simulated Rainfall: To test a case's protection level from liquid it can undergo is a simulated rainfall test, this is where up to four inches of simulated rain will be poured onto a container during a duration of 20 minutes on each of the containers sides.

Single-Up: This is a rotary die cutter that will only cut one shape.

SKU: A stock keeping unit is a distinct type of item for sale, such as a product or service, and all attributes associated

SLA: A service-level agreement is a commitment between a service provider and a client. Particular aspects of the service – quality, availability, responsibilities – are agreed between the service provider and the service user.

Sleeve: Carton sleeves are placed around the product without tension. The hold is correspondingly loose, primarily used for decorative purposes.

Slimline: A term used to describe a range of tamper evident products that exhibit narrower shoulder construction and have a different tab to open, as such they are lighter and cheaper to manufacture. Exclusive to Systempak.

Spool: See Reel

SPRC: A scheduled package run cycle, indicates the run time allowed for the packaging line to generate a pre-determined number of units.

Stack Height: A set of regulations or guidance that refers to safe stacking of packaging.

Stereo Printing: When solid plate of type metal, cast from a papier-mâché or plaster mould is used for printing in flexographic printing.

Stillage: A wooden rack or pallet for holding stored goods off the floor or separating goods in transit.

Stock Holding: How many items the company has ready made in its inventory for distribution to the customers.

Substrate: An underlying substance or layer that acts as a carrier for the real layer in films such as PET/PP, the substrate is PE and the sealing layer is PP.

Supply Chain: the sequence of processes involved in the production and distribution of a product.

Surface Resistivity: The resistance to leakage current along the surface of an insulating material.

Sustainability: Where the environmental impact is reduced on a product by developing packaging that increases the life cycle.

T

Tamper Proof: Designed to provide maximum security during the storage and transit of high value or vulnerable goods i.e., food products.

Tamper Resistant Seal: A seal that protects contents underneath it cannot be opened without evidence of tampering, the seal would then be broken.

Tamper – Evident Band: A band that is often found on screw cap on bottles. You cannot open the product without breaking the band.

Tear Strip: A Plastic film or cord that is applied to the inside of a package, that allows it to be opened quickly and easily.

Tear Tab: Like a tear strip but it is a tab that allows easier handling.

Thermoforming: Thermoforming is a manufacturing process where a plastic sheet is heated to a pliable forming temperature, formed to a specific shape in a mold, and trimmed to create a usable product

Thermoplastic: A thermoplastic, or thermos-softening plastic, is a plastic polymer material that becomes pliable or mouldable at a certain elevated temperature and solidifies upon cooling. Most thermoplastics have a high molecular weight.

Tolerance: The allowance for small difference in weight or measurements.

Top Seal: Applying a film to another product creating a barrier that items cannot penetrate.

Triboelectric Charge: The triboelectric effect is a type of contact electrification on which certain materials become electrically charged after they are separated from a different material with which they were in contact.

V

Varnish: A clear ink that can be used for protection or to approve the appearance of an item it can either be gloss, satin or matte.

Virgin Material: Also known as raw material it is a material that has not been processed in any form other than when it was extracted for use.

VMI: Vendor-managed inventory is an inventory management practice in which a supplier of goods, usually the manufacturer, is responsible for optimising the inventory held by a distributor.

Volume: The internal capacity that an item can hold.

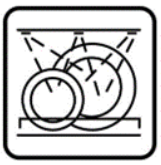
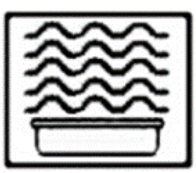
W

Warehousing: The action or process of storing goods in a warehouse.

Wastage: Any items that are produced that do not meet the required standards or deemed to be fit for purpose, if they are recyclable they can be re-used and made into the same product again..

Weight: The specific weight, also known as the unit weight, is defined as the forced exerted on a body by gravity, it tends to be displayed as w = g/kg/lbs etc.

Symbol Buster

Symbol	Meaning
	Food Safe Product is suitable for storing food
	Recyclable Product is suitable to be recycled.
	PET 1 Product is made with polyethylene terephthalate commonly known as PET or PETE.
	PET 5 Product is made with polypropylene commonly known as PP.
	Oven Safe Product can withstand the heat of an oven.
	BPA Free Product does not contain Bisphenol-A (BPA)
	Dishwasher Safe Product is suitable for use in a dishwasher.
	Dishwasher Safe (Top Rack Only) Product is suitable for use in a dishwasher on the top rack only.
	Microwave Safe Product is suitable for use in a microwave oven.
	Freezer Safe Product is suitable for use in a freezer and can withstand temperatures of up to -18°c.

Any Questions?

Get in touch via one of the methods below to resolve in any queries

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