

Product Guide

HOW TO CHOOSE CAPS AND PLUGS

THE ROLE OF CAPS AND PLUGS

Whether we're talking about a fuel line, pipes, holes in sheet metal, hydraulic hose fittings or other important parts, caps and plugs play a vital role in protection, from the [flexible end cap](#) to push in plastic pipe plugs. Often the two words are used interchangeably. Caps, however, push or thread over the outside of a part, while plugs push or thread inside the part.

Caps and plugs prevent dirt, dust, moisture, liquids and any other contaminants from entering the opening during manufacturing, masking, storage and transportation. Some can be used multiple times and many are versatile enough for different stages in processes.

We recommend that you **try before you buy** – ask us for [free samples](#).

www.essentracomponents.com/en-gb/samples

You need to consider your priorities before you can make your choice. The factors you should think about:



1 ENVIRONMENT
This includes the possibility of dirt, debris, moisture and liquid contamination. Also what temperature will your caps and plugs be exposed to? And finally, will air or liquid pressure be involved with your application?



2 APPLICATION
Are you looking for general protection or will you be using caps and plugs for masking or sealing?



3 MATERIAL
Choosing the right material is critical. For instance, if using a high-temperature masking process, you'll need a material that can perform in a high-temperature environment.



4 PRODUCTION PROCESS
How will the caps and plugs be applied, by hand or tool? A push fit cap or flanged plug can quickly be applied by hand. For tool-based processes, a cross head threaded plug can be used.



5 REMOVAL
A push fit cap or plug are not the easiest to remove. If fast removal is a priority, consider a solution with a pull tab or flange.

HERE'S A CLOSER LOOK AT THE CAPS AND PLUGS THAT SUIT SPECIFIC NEEDS.

You can see more solutions at www.essentracomponents.com/en-gb/protection

NEED: PROTECTION FROM DAMAGE

Recommended | Common Uses

TAPERED CAP AND TAPERED PLUG

[View online](#)



Storage and transportation

- Plugs multiple inner diameters
- Caps multiple outside diameters
- Tapered caps and plugs made of Low Density Polyethylene (LDPE), a rigid, yet soft material

PARALLEL PROTECTION PLUGS

[View online](#)



Manufacturing, storage and transportation

- Resists shredding
- Ideal for threaded applications
- Protects against dirt, moisture and corrosion
- Made of Low Density Polyethylene (LDPE), a rigid, yet soft material

PUSH-IN FLANGE PROTECTORS

[View online](#)



Finishing, storage and transportation

- Flexible fins provide snug fit without the need for fasteners
- Made of Polyethylene (PE) for high impact strength

STANDARD SIZE PIPE CAPS

[View online](#)



Assembly, storage and transportation

- Low cost and high quality
- Internal ribs ensure tight fit and release pressure build-up
- Made of Low Density Polyethylene (LDPE), a rigid, yet soft material

CYLINDER VALVE CAP

[View online](#)



Storage and transportation

- Protects propane valves
- Overfill prevention device (OPD)
- Push fit for easy application
- Made of Low Density Polyethylene (LDPE), a rigid, yet soft material

NEED: PROTECTION AGAINST DIRT, DEBRIS, AND LIQUID INGRESS

Recommended | Common Uses

O-RING THREADED PLUGS

[View online](#)



Hydraulics

- Can be applied or removed by hand, hex wrench or screwdriver
- Compressing flange lip and O-Ring provide water tight seal for superior leakage protection
- Available in a variety of threads
- Available in:
 - Polypropylene (PP) for good chemical resistance
 - High Density Polyethylene (HDPE) with serrated grip
 - Nylon for strength, abrasion resistance

FINNED STUDDED CAPS

[View online](#)



Manufacturing, storage and transportation

- Protects a wide range of studs
- Internal fins provide a strong hold and are flexible for use on various diameters
- Comes with grip to ease removal and without grip
- Made of Low Density Polyethylene (LDPE), a rigid, yet soft material

QUICK RELEASE PLUGS

[View online](#)



Hydraulics

- Designed to remain attached to hose
- Made of Thermoplastic Elastomer (TPE) for excellent flexural fatigue resistance and high impact strength

COMPRESSION FIT PLUGS

[View online](#)



Hydraulics

- Protects DKO-compression fittings not only from contaminants, but also from damage during transit and storage
- Flexible fin provides a firm and secure fit
- Side pull tab for easy removal

USB DUST COVER

[View online](#)



Electronics

- Available in different shapes and sizes
- Made of Silicone – an excellent material for electrical insulation

NEED: EASY APPLICATION AND REMOVAL

Recommended | Common Uses

PULL TAB CAPS

[View online](#)



**Storage and transportation – PVC
Hydraulic hoses – EVA**

- Large pull tab for easy removal
- Available in PVC for flexibility and airtight seal
- Available in Ethylene Vinyl Acetate (EVA) for tensile strength, toughness and flexibility

SIDE PULL PLUGS

[View online](#)



Manufacturing, storage and transportation

- Protects threaded or non-threaded components
- Pull tab feature designed for easy removal
- Available in Thermoplastic Rubber (TPR)
- Available in Low Density Polyethylene (LDPE)
- Resists acid

TEAR TAB CAPS

[View online](#)



Manufacturing, storage and transportation

- When tab is pulled, cap splits open for quick removal
- Suitable as NPT thread plug, and UNF
- Made of Low Density Polyethylene (LDPE) to protect from damage

TAPERED ROUND PLUGS WITH FLANGE

[View online](#)



Storage and transportation

- Excellent protection from damage, dirt, moisture and corrosion
- Designed as both a cap and a plug
- Wide flange keeps plug from being accidentally pushed down through the mating part
- Flange enables easy removal
- Tapered design can plug or cap multiple diameters
- Made of Low Density Polyethylene (LDPE) to protect from damage

SNAP FIT PLUGS

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Manufacturing, storage and transportation

- Centre tab allows for a strong grip for easy tightening and removal
- Suitable as a metric threaded cap, and for BSP and UNF threads
- Made of Low Density Polyethylene (LDPE) to protect from damage

NEED: END USE

Recommended | Common Uses

SHEET METAL PLUGS

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Automotive, specialist vehicles

- Push in plugs for panels designed to cover holes in sheet metal
- Easy to fit with simple push and remove
- No fastening required
- Secure fit
- Attractive finish
- Made of hard, long-lasting Nylon

ROUND FERRULES

[View online](#)



Automotive, specialist vehicles

- Neat cover to round-shaped tubes
- Not just for finishing – also provides protection
- Made of PVC for flexibility and snug fit

SECURE COVER CAPS

[View online](#)



Furniture, outdoor equipment

- Snaps securely into place with ease
- Conceals and protects bolt head or nut
- Available in different colours and can be mixed and matched
- Made of Polypropylene (PP) for good impact strength and pliability

BOLT PROTECTION CAPS

[View online](#)

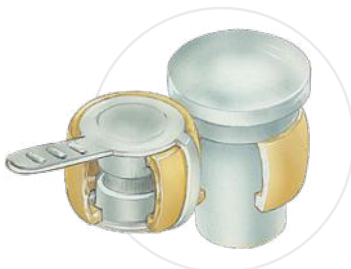


Furniture, outdoor equipment

- Protects washers, bolts and nuts against weathering and tampering
- Gives application finished appearance
- Available with extended head for large studs
- Available in Polyethylene (PE) and Low Density Polyethylene (LDPE)

BANJO UNION PLUGS

[View online](#)



Automotive – protection of banjo unions

- Prevents dirt and moisture ingress
- Made of Low Density Polyethylene (LDPE), a rigid, yet soft material

NEED: MASKING

A word about masking. Materials can make all the difference, so choose wisely according to the application you’re using. Materials react differently to processes, so before you actually start masking, just a reminder, request a [free sample](#) of the plug or masking cap for painting or for any masking process that you’re interested in. This will allow you to test it. You’ll also find [masking tape](#) convenient for areas that caps or plugs can’t cover.

If you’re looking for high temperature rubber caps, you want Silicone or Ethylene Propylene Diene Monomer (EPDM), depending on your masking process. These are both types of rubbers. You can learn more about materials in our [Ultimate Guide to Caps and Plugs](http://www.essentracomponents.com/en-gb/news/product-resources/the-ultimate-caps-and-plugs-guide) (www.essentracomponents.com/en-gb/news/product-resources/the-ultimate-caps-and-plugs-guide)

Here’s a quick overview of what you need to know.

MASKING: WHICH MATERIAL IS BEST FOR YOUR PROCESS?

Application	Material									
	Silicone	Polyimide Tape	Silicone Tape	Glass Cloth Tape	EPDM	High-Temp Vinyl	TPR / TPE	Paper	Polyester	High-Temp Crepe
Feature	Premium; reusable	Premium; excellent solvent	Self bonding; perfect for irregular shapes	Durable; for blasting or thick coatings	Costs around 30% less than silicone	Low cost; not reusable	Lightweight	Low cost; recyclable	No shrinkage	Special high-temp formula
Powder Coating	✓	✓	✓	✓	✓	✓	✓	✓	✓	
E-Coating	✓	✓	✓	✓	✓	✓	✓		✓	
Anodizing	✓	✓	✓		✓	✓	✓		✓	
Plating	✓	✓	✓		✓	✓	✓		✓	
Wet Paint	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Blasting	✓			✓	✓		✓			
Max Temp	+250°C +482°F	+260°C +500°F	+204°C 399°F	+180°C +356°F	+150°C +302°F	+170°C +338°F	+95°C +203°F	+120°C +248°F	+150°C +302°F	+204°C +399°F

*Please note that due to the number of variables in each process such as temperature and pre-treatment, Essentra recommends that a free sample is requested to test in application. We do not assume any liability for the materials, specifications or information provided. For complete temperature and other physical properties of our product’s material, please refer to the actual product material technical data sheet (available upon request).

WHICH SOLUTIONS?

Recommended	Material	Why?
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HIGH-TEMPERATURE SILICONE TAPERED PLUGS

[View online](#)



**EPDM
Silicone**

- Available as a solid plug or with a hollow core to aid in compression
- Excellent chemical resistance
- Reusable

FLEXIBLE END CAPS

[View online](#)



**High-temp
PVC**

- Suitable for a multitude of applications
- Flexible to ensure a tight fitting and different level of shores provides a choice in flexibility

MASKING WASHER CAPS

[View online](#)



**EPDM
Silicone**

- Protects threaded and non-threaded end tips
- Washer seals the edge to protect from contaminant

MASKING PULL PLUGS

[View online](#)



**EPDM
Silicone**

- Masks threaded or unthreaded through holes
- Fast, easy removal

EASY PULL MASKING CAPS

[View online](#)






**EPDM
Silicone**

- Protects end tip profiles
- Internal seal prevents paint ingress
- Flange provides easy removal

WHICH SOLUTIONS?

Recommended	Material	Why?
<p>MASKING CONE CAPS AND PLUGS</p> <p>View online</p> 	<p>EPDM</p>	<ul style="list-style-type: none"> • Dual role – can be used in multiple diameters
<p>MASKING FLANGELESS PLUGS</p> <p>View online</p> 	<p>TPR EPDM</p>	<ul style="list-style-type: none"> • Masks holes without masking surrounding areas • Protects multiple diameters • Masking pull plug with tab for easy installation and removal
<p>POLYESTER TAPE</p> <p>View online</p> 	<p>Polyester</p>	<ul style="list-style-type: none"> • Masks with no shrinkage and removes cleanly in with piece after use
<p>POLYIMIDE TAPE</p> <p>View online</p> 	<p>Polyimide</p>	<ul style="list-style-type: none"> • Highly conformable • Excellent heat and solvent resistance
<p>SILICONE TAPE</p> <p>View online</p> 	<p>Silicone</p>	<ul style="list-style-type: none"> • Form fitting – excellent for odd shapes • Waterproof seal after 24 hrs self-bonding cure

WHICH SOLUTIONS?

Recommended	Material	Why?
<p>GLASS CLOTH TAPE</p> <p>View online</p> 	<p>Glass cloth (Fibreglass)</p>	<ul style="list-style-type: none"> • Easy to remove without fraying • Excellent for masking irregular shapes and corners
<p>CREPE MASKING TAPE</p> <p>View online</p> 	<p>Crepe</p>	<ul style="list-style-type: none"> • A thick pressure sensitive tape that is easy to apply and remove • Best for low temperature liquid and powder coatings
<p>PAPER CAPS</p> <p>View online</p> 	<p>Paper</p>	<ul style="list-style-type: none"> • Easy application • Environmentally friendly and economical solution

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