EPPIC Insert System

Assembly Guidelines



EPPIC system is designed for an **easy and efficient assembly of EPP foam** to metal, plastic, or other cover materials, in applications requiring:

· Repeated **assembly and disassembly.**

· High **pull-out and loosening resistance.**

· Manual, semi-automated or fully automated assembly lines.

· Process reliability: a **large safety margin** between installation and stripping torque.



Final assembly

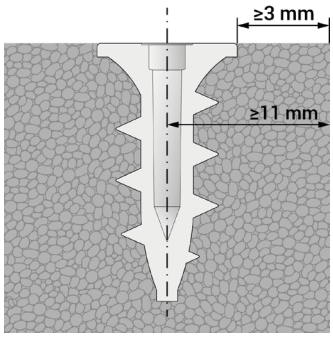
First step: Screwing the insert EPPIC into the EPP

EPPIC pierces the foam directly. No pre-hole required, although it's recommended for consistent alignment.

· Pre-hole **Ø=5 mm x 12 mm**.
· Min. **11 mm radius from insert axis** (wall thickness ≥22mm).
· Min. **3 mm from insert head to panel** edge.
· Hexalobular recess ISO 10665 N.30.
· Recommended speed 50-300 rpm.
· Install at the torque indicated in the table, then **fine-tune in 0.2 Nm** steps until the insert head sits flush with the foam surface.

EPP Density (g/L)	Tightening torque (Nm)
60	1.7
80	2.2
100	2.5
120	2.6

These values are indicative. Use them as a starting baseline and validate by application testing.



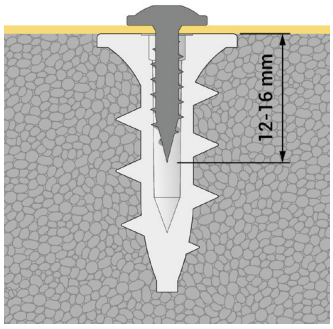
EPPIC installed into EPP

Second step: Install self-threading screw to assembly the cover

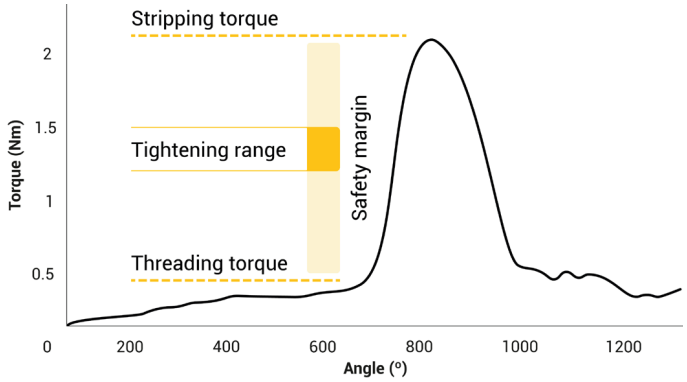


We recommend **TWINPLAST** screw, twin-lead design provides fast installation and higher tightening torque.

· Screw diameter **Ø4 mm**.
· Screw length selection: Add the cover thickness **+12-16 mm of thread engagement** inside the EPPIC insert.
· POZI Z2 recess.
· Tightening torque **1.3-1.5 Nm**.
· Recommended speed max. 500 rpm.



TWINPLAST into EPPIC insert



Torque curve **TWINPLAST** Diameter 4 mm, length 16 mm.

Install the **TWINPLAST** screw at recommended tightening torque **1.3-1.5 Nm at 500 rpm** max. to ensure a **high process safety**.

TWINPLAST dimensions available in stock:
4x16 416TP88Z 4x25 425TP88Z
4x20 420TP88Z 4x30 430TP88Z

REMFORM® screws are also compatible when different head styles, drive systems, or coatings are needed.

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Troubleshooting guide

Use this guide to solve some of the problems that may arise when assembling EPP parts.

Issue 1 **Insert not flush with EPP surface**	Cause A **Insuficient torque**	Solution **Increase torque (view 1st step)**
	Cause B **Misalignment during insertion**	Solution **Ensure perpendicularity** **Pre-hole diameter 5 mm recommended**
Issue 2 **Insert sinking too deep into EPP**	Cause A **Excessive torque**	Solution **Reduce torque (view 1st step)**
	Cause B **EPP density too low**	Solution **Verify EPP density within range**
Issue 3 **Insert spinning in EPP**	Cause B **EPP density too low**	Solution **Verify EPP density within range**
Issue 4 **Low resistance of EPP insert**	Cause **EPP wall too thin or insert too close to panel edge**	Solution **Ensure min. 22 mm wall thickness and min. 3 mm from insert head to edge**
Issue 5 **Screw stripping insert internal hole**	Cause **Excessive screw torque or insufficient engagement**	Solution **Reduce screw torque to 1.3 Nm** **Verify 12-16 mm engagement into insert**

Watch the assembly video

Scan the QR code
or watch it on our **YouTube channel**

Visit the product page on **www.celofasteners.com**

Questions about your application?
Contact our application engineers at **celo@celo.com**

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