

## BOSSARD PRESENTING MM-WELDING® TECHNOLOGY USING ARPRO

# MM-Welding® LiteWWeight zEPP



### WHAT IS MM-WELDING®?

MultiMaterial-Welding is a Fastening Technology Platform that uses ultrasonic energy to partially liquify thermoplastic materials to create a functional and strong connection within lightweight materials in fractions of a second.

Density [g/l]	Pull out [N]
30	300
45	450
60	600
80	800

### LITEWWEIGHT ZEPP

- Fast and strong fixation technology for EPP foam using the MM-Welding® process based on ultrasonic vibration
- Standard solution for a wide range of densities



LiteWWeight zEPP  
 Technical Data:  
 Material: PP based  
 Ø = 25mm  
 H = 10mm

### ADVANTAGES OF MM-WELDING®:

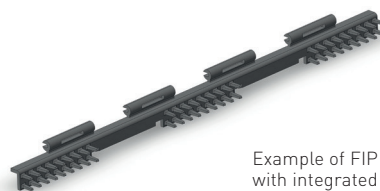
- Very fast processing time of ~ 1 second
- High pull-out strength due to optimal integration to material
- High torque resistance because of MM-Welding® specific anti-turning structures
- Full integration in substrate possible
- Placement directly at the edge of the material possible
- Low fastener height for less space limitations
- Applicable in all densities
- No pre-drilling

### FUNCTIONALLY INTEGRATED PARTS (FIP)

MM-Welding® zEPP connection geometry can be integrated into the injection molded part, which simplifies production, reduces costs and enables complete design freedom.

### ADVANTAGES:

- Geometrical freedom – No rotational symmetry required
- Higher Strength – With less material, higher strength can be achieved
- Reduced time and costs: Very fast process and less parts to manipulate which reduces costs



Example of FIP – Hinge with integrated MM-Welding® Geometries