

The choice of the right sub-roof depends, among other things, on the requirements of the roof, the local standards and regulations as well as the specifications of the Megasol in-roof system installed and any roofing elements combined with it. The contractor himself is responsible for choosing the right sub-roof.

### **No sub-roof**

Carports; open storage sheds; canopies; buildings that do not have to be completely watertight in practice.

### **Sub-roof for normal loads**

In the case of sub-roofs for normal loads, the sub-roof membranes can be designed with overlapped or windtight bonded joints as well as scaled or rebated joints with sub-roof panels. Sheets or membranes can be used. The sub-roof must be impermeable to freely flowing water.

#### Germany similar to class 3, seam and perforation-secured underlap

Seam- and perforation-secured underlay. Joints and seams glued rainproof, measure below the counter batten to seal the nail penetrations, e.g. nail sealing tape.

### **Sub-roof for increased loads**

In the case of sub-roofs for increased loads, the joints and seams must be glued at least watertight. The materials must be sufficiently resistant to the stress caused by ice formation and must be laid tightly in the event of backwater  $\leq 50$  mm.

#### Germany similar to class 2, rainproof underroof

A sub-roof is an additional measure made of waterproof materials on a sufficiently load-bearing base. The sub-roof is homogeneously waterproofed over the entire surface. This includes the seams and butt joints between the individual sub-roof membranes, which must be bonded or welded to be watertight and suitable for the material, as well as the execution of all penetrations, edgings and installation parts. Counter battens are not integrated, measure below the counter batten to seal the nail penetrations, e.g. nail sealing tape.

### **Sub-roof for exceptional loads**

In the case of sub-roofs for extraordinary loads, only homogeneously weldable sub-roof membranes may be used and the sub-roof must be impermeable to the expected high water pressure in the event of water accumulation  $> 50$  mm.

#### Germany similar to class 1, waterproof sub-roof

A sub-roof is an additional measure made of waterproof materials on a sufficiently load-bearing base. The sub-roof is homogeneously waterproofed over the entire surface. This includes the seams and butt joints between the individual sub-roof membranes, which must be bonded or welded to be watertight and suitable for the material, as well as the design of all penetrations, edgings and installation parts. Integration of the counter battens into the waterproofing layer.

### **Special waterproofing / flat roof quality**

Special waterproofing must be selected if the minimum slope recommended for the covering is not observed and permanent water ingress is to be expected. It must be impermeable to the expected water pressure and permanent water ingress at connections and terminations, fastenings and penetrations and withstand constant UV exposure. In addition, the counter battens must be completely welded in with the selected seal.

### **Further requirements / recommendation**

Underroofs should be resistant to the elements for at least six months and have a temperature resistance of at least  $80^{\circ}$  (e.g. Ampack Ampatop Seal GHS underroof membrane). Drainage into the gutter is recommended for every type of sub-roof. If the requirements for the sub-roof cannot be clearly determined or if additional requirements are specified, it is recommended that the next higher level is used.