Metal Sheds – Condensation Factsheet

Metal sheds will suffer from condensation where dampness is present in the foundations. The air inside the shed is always slightly warmer than outside, therefore, any moisture in the foundation will rise until it touches the cold metal panels. This moisture condenses, drips down, and becomes part of the cycle again. The condensation cycle is difficult to stop, therefore it is important to prevent dampness in the first instance. The following points about base construction are important, and should be followed accurately.

1. The concrete or slab base should be only a few inches larger than the base rail of the shed, e.g. a shed with a base rail measurement of 93”x70” should ideally have a foundation measuring 96”x73”.
2. The foundation should contain a damp-proof membrane which should be inserted into the base at least 2” higher than the surrounding soil running onto the base surface.
3. The foundations of the shed should be allowed to ‘cure’ for at least 7 days after casting the concrete, longer if the atmosphere is damp. If this is not done, the water drying up from the concrete will provide ample moisture to set up a condensation cycle.
4. After bolting down the shed to the concrete or slabs, apply mastic sealant to the inside of the shed base rails (not the outside). This will preserve the drainage capability of the channels whilst preventing water seepage under the rails and into the shed interior.

If the base has already been constructed, and a problem of condensation is apparent, there are two methods of cure;

a. Detach the shed from its base and construct a timber floor on raised bearers, dimensions to be a few inches larger than the base measurements of the shed. Fix the shed to the surface of the floor with wood screws and mastic seal the inside of the shed base rails. This will allow air flow under the new floor and keep the base area dry. This will eliminate the problem, however you should ensure that water cannot collect under the floor, as a pool of water would detract from the effectiveness of the ventilation.
b. Clean off the underside of the roof panels with methylated spirits, and ensure that the panels are dry. Obtain the cheapest polystyrene tiles available, and adhere them to the underside of the roof using the specialists spray glue (product No. 77 spray can) made by the 3M company. This adhesive is specifically for bonding polystyrene to metal, and is not adversely affected by heat or cold, although this work is best carried out on a warm day. Both tiles and roof panels should be coated, and after 1-2 minutes the surfaces can be bonded together. This action will not remove the moisture from the atmosphere, but it will prevent it condensing due to its insulation properties.