



Confor foam - cushioning and impact absorbing safety foam

Maintaining your Confor seat cushion and frequently asked questions

Can I shape/or cut my cushion to fit?

Confor foam can be cut relatively easily with a very sharp slim long bladed knife or a straight edged electric carving knife. A cooler environment is preferable but not freezing as in extreme conditions the foam will go solid – but will return to normal relatively quickly.

Does the cushion need covering?

We recommend that the seat cushion is fitted into a seat cover to protect it.

Does the cushion need fixing?

We would recommend the cushion is secured to the seat by some form of fastening, something as simple as Velcro can be very effective.

Which way up do I use the cushion?

Both the blue and green layers are impact absorption foams; however the blue layer is there to give added comfort. So the blue layer faces upwards towards the occupant.

Is it possible to use additional foam to raise the height of the cushion?

The trials were not carried out under these conditions, and we would advise it is NOT ideal and we would NOT recommend it. However that could be an acceptable way of doing it. If you need to do this, we would suggest some dense foam for the lower layer, something that is not too resilient (i.e. springy).

Will the Confor foam be as firm as my original foam seat?

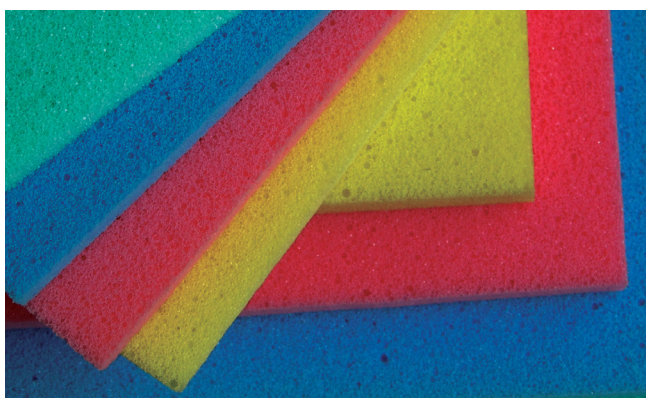
In most circumstances your current seating foam would be less dense than the Confor foam, so with your new seat cushion you may find yourself in a more elevated position than usual. You may need to replace with a slightly thinner seat squab, especially if the current seat has seen a lot of use and become more compressed.

Does the foam have an optimum operating temperature?

The urethane foams dynamic properties change dramatically once below about 10°C (becoming rigid) and above 45°C (becoming soft) – please see overleaf for further clarification. If the seat is exposed to prolonged lower temperatures the seat will feel firm to sit on, but once sat on it, it should only take a few minutes to return to its normal state.

Cold temperatures:

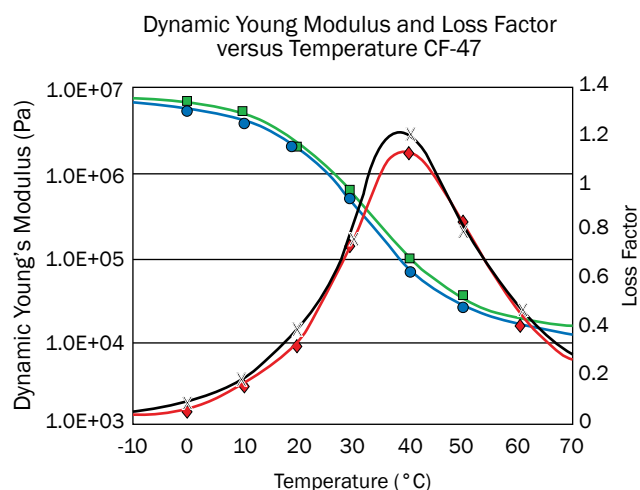
If the material is cold soaked i.e. left in freezing temperatures it will go solid giving zero compressibility. It would also be possible to damage the material if subjected to impact while in this state (avoid standing on the edge of the seat when subject to these temperatures). The material does return to normal relatively quickly once subjected to an increase in temperature such as being sat on. We would suggest that in sub zero temperatures where possible that it is not left inside the glider/ light aircraft but is removed. If it is part of PPE then this would be perhaps good practice if possible to do so.



Hot operating temperatures:

The seat will noticeably soften once about 45°C. The great thing about the human body is its core temperature is around 38°C is ideal for Confor foam. So once the human posterior is in contact with the foam it will soon equalize the temperature from a below or above 38°C temperature.

Please see below a graph which shows the performance range for the CF 47 (green Confor foam). Anything above the 0.7 Loss Factor (The lines with the peak in) would provide good comfort and impact performance.



What do you suggest if I have to leave my cushion permanently inside the aircraft?

If it has to be left in while subject to cold temperatures we would advise against repeatedly standing on the cushion to avoid damage etc (especially the edges of the seat cushion). In a frozen state the material is fairly brittle and the materials could be damaged under great force.

The temperature inside the cockpit can rise to quite high levels, how might this effect the cushion material?

If the glider is heat soaked in the sun then potentially the material could exceed its optimum operating range. It will still deliver better performance than virtually all other foams. The seat temperature will drop quite quickly once it is sat on as the human body will take away from that area, returning the seat to its ideal operating temperature.



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