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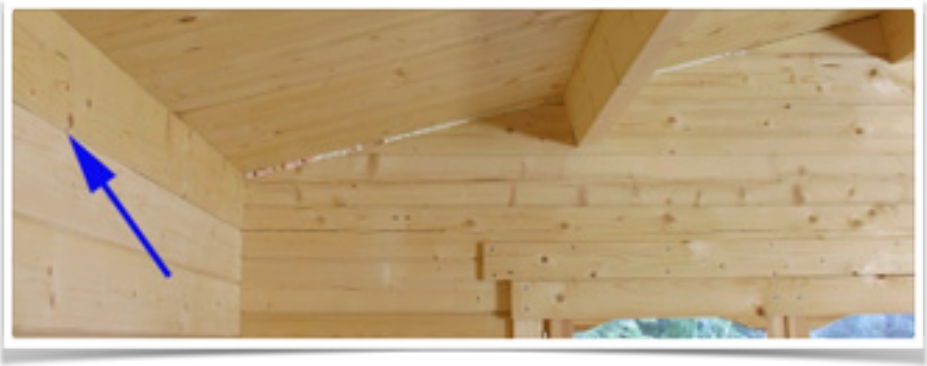
CASE STUDY

Residential Wood Building Application

Award Winning Energy Saving and Asset Protection Coatings



GEOGRAPHICAL AREA:
United Kingdom

ISSUE:

Heat loss through uninsulated walls and ceiling of work cabin.

SOLUTION:

Energy Protect™ clear coat

Coverage: 3 coats

RESULTS:

- ✓ Provided clear insulation coating which allows the beauty of the wood interior to shine through.
- ✓ Elimination of convection heater which was previously needed to heat cabin.
- ✓ Provides thermal insulation, resulting in lower energy usage. Case Study shows 20% temperature difference.
- ✓ Provided surface protection such as mold, moisture and UV resistance.
- ✓ Long lasting - 5-10 years.

From blog of customer: Nigel Burkin, shared with his permission.

ISSUE: We are leaking heat to atmosphere like a sieve, over a considerable area of roof. Furthermore, the layout cabin has no roof insulation to speak of. I was relying on the thick roof boards to do the trick. It didn't last winter. The house extension could not be insulated with foam because it would cause a damp problem.

The cabin could be insulated with very environmentally unfriendly foam board installed in the roof and disguised with a false ceiling. However, the beautiful planked ceiling and those huge wooden purlins would be lost from view. The idea of fixing a false layer of tongue and groove to recreate the plank effect was prohibitively expensive and labour intensive to boot. Something had to be done before winter sets in.

SOLUTION: Sarah, my wife, found a very interesting and cost effective solution after a determined search on the Internet. Whilst I was lounging in the bath, soaking away those horrible little fibres after a session of installing a further thick layer of conventional loft insulation in the cottage part of the house, she discovered nano technology. Not from a Star Trek web site either...

And the excess profit orientated managers at Southern and Scottish are going to hate this stuff...truly hate it.
There are claims of up to 40% saving in heat loss. Considering that we have an all-electric system here and that potentially means over £600/year saving on our electricity bills based on the area of the house in which this insulation material could be used. It provides the answer to the flat roof insulation challenge in the house.

Energy Protect™ looks like acrylic varnish and indeed it behaves the same way, drying to a clear semi-matte finish. It is applied to the interior surface of ceilings and exterior walls in three thin coats to create a heat barrier.

Work on the layout was stopped for the time it took to coat the ceiling of the cabin - three coats. Protection of surrounding furnishings, the floor and so on was not absolutely necessary because it seemed to be fairly resistant to dripping and splattering.

Cabin insulation update:
Energy Protect™ liquid insulation has been in place in the roof space of the cabin for around 30 days now. The curing time for this material is 30 to 60 days for maximum efficiency, so I would expect to see some difference in the comfort and warmth in the cabin itself. Here's some anecdotal evidence that it is working:

With nearly 360 square feet of space to heat and a high roof area without A-frame support it's a large volume to heat. The cabin needed two heaters last Autumn and winter: a 2kW oil-filled Delonghi 'Dragon' radiator and an older, less efficient 2kW heater which amounted to being a short across the grid. It took two hours to get space heating up to a comfortable working temperature in the evenings. A couple of nights' ago, the external temperature was 4 degrees centigrade and only 12 in the cabin with the radiator on frost setting when I entered for a track placing session. The oil-filled radiator brought the temperature up to warm and comfortable in 30 minutes before it was turned down. The convection heater? oh, that was discarded (recycled) weeks ago!