CARING FOR YOUR Canvas

CLEANING

If you're unfortunate enough to come across any mouldy spots, scrub them off with a soft brush. Otherwise, assuming you've bought properly treated canvas, like Wax Converters' Dynaproofed canvas (where the fabric is dipped into the required solution, rather than being coated on both sides), you won't have to worry about cleaning mould.

STORAGE

Storage on a concrete floor is a no-no because below-surface moisture will cause the canvas to sweat, but it's more likely everything will be snug in the trailer anyway. The main thing to remember is to ensure everything's bone-dry before you store your trailer long-term. Though, in the case of a sudden monsoon from hell, you're excused – pack it up and set it up again when you've escaped the rain.

SEASONING AND WATERPROOFING

Canvas can be treated with chemical waterproofing agents. This can enhance the material's performance by helping to repel water in the first place. Untreated canvas will still do well in a shower, it'll just absorb more water, and you'll need to let it dry for longer before storage.

Ideally, canvas is 'seasoned' before its first serious use. James Kelman, CEO of Wax Converters Textiles recommends that it's wet and dried three times. In the perfect world this would be achievable by a hand hose (note your local water restrictions), although it's going to work much better either under a movie-studio rain machine, or in the real thing, which could be hard to come by anyway, depending on where in the country you are...

Seasoning allows the material and its seam stitching to expand and settle into a solid, sealed shape. This aids waterproofing and maintains structural integrity. Although pre-use seasoning is recommended, canvas is considered 'self-seasoning', meaning that after a few stormy nights, your camper trailer will be right as rain.

CLARIFYING Canvas

Everything you need to know about that often under-appreciated textile.

It could be on your feet, in your overalls or over your shoulder – canvas is one very versatile textile – and it's responsible for keeping you warm and dry in your camper trailer, tent or annexe. And then there's its integral place in the art world.

From the same root as the word "cannabis", likely because it was once commonly made with hemp fibre, canvas could well be the Achilles heel of your travels, and it might pay to find out a swatch more about it. So, zip open your doors, and ready yourself for some canvas canvassing.

FABRICATION

Canvas was originally, and still is made with natural fibre. One advantage of natural fibres, other than the renewability of the resource, is that their fabrics breathe. This is especially important in the case of a camper trailer and its annexe. Since us humans tend to exhale a fair bit of condensation during the night, a non-breathable synthetic material could have you and your mates waking to some early drizzle – inside the trailer. Canvas does away with that, and lets most of the moisture right through, outside where it belongs.

Increasingly, synthetic fibres are blended with cotton fibres. In a frequently successful trade-off, polyester fibres (often 50 per cent to 65 per cent of the blend) add strength without the weight penalty of natural fibres; the cotton component ensures the canvas retains a high degree of breathability and comfort.

The use of blended fabrics reflects a trend toward lighter-weight end products – if the canvas isn't so heavy, an annexe, tent or trailer is easier to set up and stows away in a smaller space. Completely synthetic materials are used where a structure is in permanent contact with ground moisture.

The best canvas is made with top-notch cotton, and is made by twining long fibres of cotton into a two-ply yarn and then spinning them together into what is known as "double-fill" canvas. A lesser-quality textile is produced by spinning shorter single-ply threads.

The method of spinning fibre into yarn in the first place has a huge impact on the end product. The cheapest method is "open-end" spinning, which results in a course, patchy fabric that doesn't take up chemical treatments that well. At the other end of the spectrum, "ring-spinning" delivers best results as it strengthens the yarn and helps the fabric to absorb chemical treatments.

WHAT TO LOOK FOR

In the first instance, if your canvas journey involves buying a pre-made trailer or annexe, you might have no options, and your primary concern will be to determine whether or not the canvas already used is of suitable quality.

Sometimes, if second-rate cotton is used in the manufacturing process, fragments of the outer husk of the cotton flower will show up in the fabric as fine dark spots. Although not all inferior fabrics will be so readily detectable, if you see spotted canvas, it's best to move on. Made in this way it's weaker and more prone to mould and water ingress.

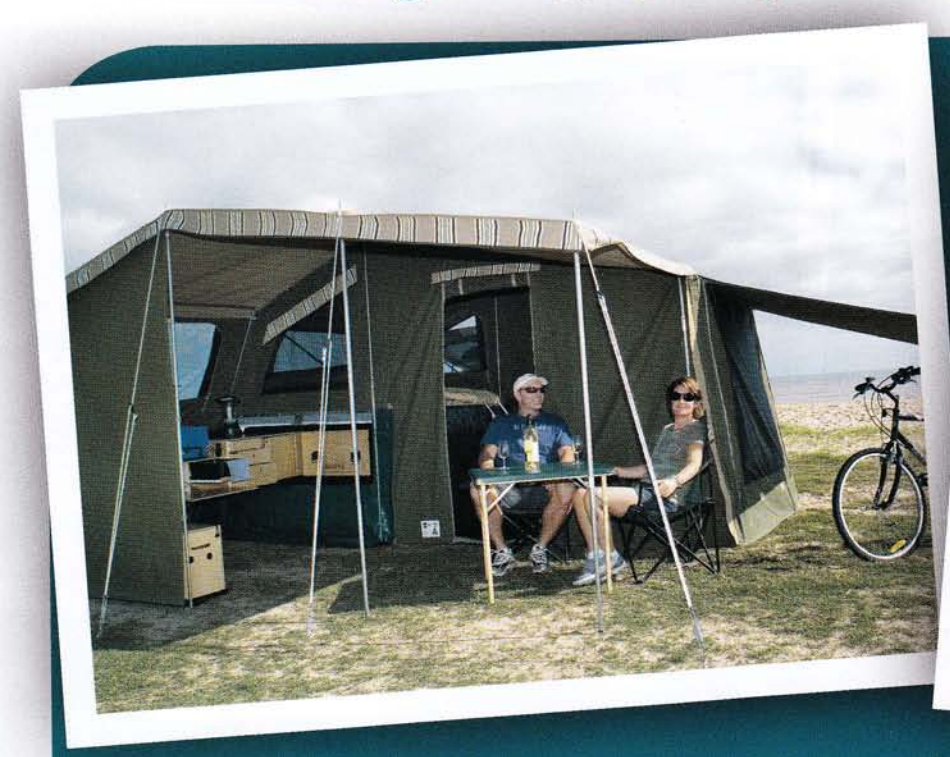
Many canvas manufacturers routinely test their products' strength and durability on industrial machinery. Tear tests are done both with and against the grain of the fabric (down the roll of fabric is referred to as the "warp", and across is the roll is called the "weft"), and another test is done to determine the strength and water-ingress of a patch of the fabric, the "cone" test.

Australian standards demand the cone test, which involves stretching the canvas over something resembling the pointy end of an ice-cream cone and pouring 200mL of water into the point. To pass the water-ingress component of the test, less than 1mL must drip through over 24 hours.

If you're given a choice of materials for your trailer tent or annexe's construction, then consider that heavier might not necessarily be better. In fact, a lighter, more carefully manufactured canvas will out-perform a far heavier, poorly made canvas. The reason for this could be thought about in the same way as TV resolution – the more dots per inch, the higher the resolution and the better the picture. The best canvas is tightly woven, with many threads per inch, and the resulting product is strong and very durable.

STITCHING AND CONSTRUCTION

Since canvas will swell and shrink as it wears in, the best thread to stitch canvas is one that will also swell and plug the holes made by sewing needles. The thread of choice is a high-quality "core-spun" polyester/cotton-blend. Totally synthetic



threads don't swell and can cause seam leakage, which is frequently mistaken as a fault with the canvas itself.

GRADES AND TYPES

There are a number of different attributes by which canvas is graded. These are generally determined by its end use, and the particular weight, waterproofing and strength required. Using a military-grade textile for a one-man tent might work fine, but it can be overkill, and is heavier to lug around.

For example, fact sheets from Wax Converters Textiles, a large-scale Australian canvas manufacturer, usually include some or all of the following information:

- Weight, in grams per square metres, of the treated and untreated fabric. Treated fabric is heavier, since it absorbs the protective solution;
- Width, in centimetres, of the fabric on the roll of the treated and untreated fabric. Treated fabric shrinks somewhat, and is narrower;
- Maximum shrinkage potential of the fabric, expressed as a percentage of "warp", the length of the fabric down the roll;
- Tear resistance in warp and weft directions, expressed in newtons;
- Breaking force in warp and weft directions, expressed in newtons;
- Construction details, like the percentage of polyester/cotton weave, weave type, and yarn count;
- The results of the hydrostatic head test (in millimetres per minute) and cone test (pass or fail) for water permeability and durability;
- Flammability test specifications.

The most meaningful numbers for a camper trailer buyer are probably the tear and break-resistance figures, which when compared to the fabric weight, can represent something of a trade-off, so it's not surprising the highest grades of canvas have the best strength-to-weight ratio. In the end, unless you're ordering a custom trailer or building one yourself, you might not have such a selection of canvas to choose from, but at least you'll know a bit more about what the dealer's selling you!

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TREATMENTS AND COATINGS

Most canvas products are treated with a fire-retardant coating. This means that the canvas, if it catches fire, will only continue to burn if the source flame continues to burn. Extinguish the source and you'll easily contain the blaze.

Apart from water-repellent coatings, other popular weather coatings are UV-protection and mould-inhibitors. Since we have everything from skin-cracking dryness to shirt-soaking humidity, anything to maintain canvas through the extremes of weather is most welcome for Australian travel. ■

Top right: Kimberley Kampers uses 12oz canvas for the roof, 8oz for the tropical roof and 10oz for the walls so that they easily fold into the camper. **Top left:** It's a good idea to 'season' canvas by wetting and then drying it a few times before exposing it to rain. **Right:** The best kind of thread is one that will swell and plug the hole made by the needle.