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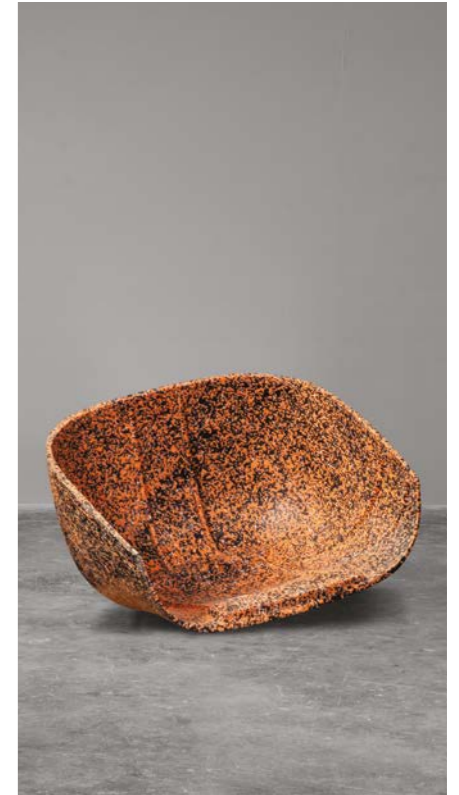
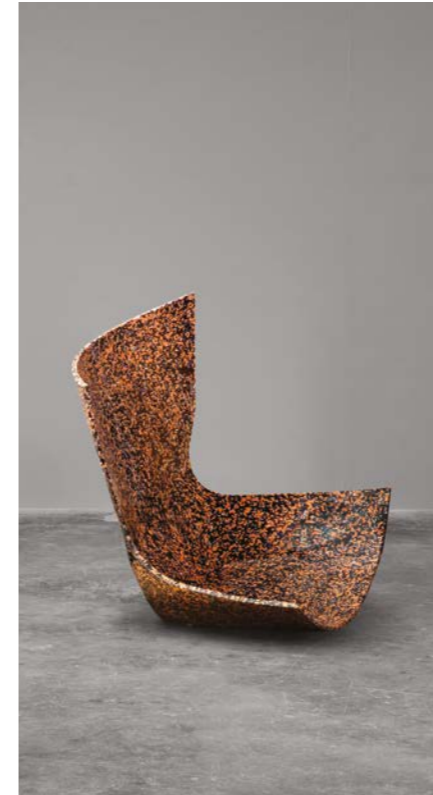


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# Sustainable Innovation



## AN AUSTRALIAN INNOVATION TURNS OLD TELEPHONES INTO RECYCLED PLASTIC CHAIR SHELLS.

Text Linda Cheng Photography & Art Direction Mark Rudge & Ty Layton at Change Creative

**R**ecopol™ is made from recycled ABS, a hard plastic commonly found in the casings of electronic appliances such as telephones, computers, printers and the insides of refrigerators and washing machines. It's the first and only recycled ABS plastic furniture shell in the world. This innovation, developed by Wharlington more than 20 years ago has recently gained an EcoSpecifier Green Tag certification for sustainable furniture. As well, it's the first Australian product to be listed in the MATREC EcoMaterials database.

ABS plastic is virtually indestructible. Although, at first glance, it doesn't seem like the obvious choice for sustainability – it never breaks down – but this is precisely

why it's perfect for furniture. As a structural engineering TER polymer, the material is as safe as houses. Unlike elasticised plastics, ABS doesn't spring back, which means furniture manufacturers can fire staples into the shells without worrying about them being pushed out. It was originally accepted by the American FDA as food grade material for butter containers, as it has no VOCs. Nothing grows on it and nothing will ever eat it. So recycled ABS is ideal for making sustainable shells for upholstered furniture, as an alternative to MDF or plywood.

Compared with FSC plywood, which can be difficult to source and even more difficult to verify, a major advantage for Recopol™ is that it can be recycled an infinite number

Left: A family of Recopol™ shells  
Top left to right: Rabbit, Mitt Sweptback and Bubble shells



Above: Ivy Chair from Stylecraft.  
(Image courtesy of Stylecraft.)

“In a way, we’re a double loop because we’re recycling materials that would have gone to landfill and we can take back what’s been used.”

of times where as plywood shells won’t withstand being torn apart.

Wharington began making Recopol™ from recycled ABS out of economic necessity. Plastic, as a petro-chemical product, fell into short supply after the 1980s oil crisis. Suddenly it became a commodity and people began repossessing it and trading it. A major source of ABS for Recopol™ comes from Telstra’s repossessed telephones.

In the 1990s, Wharington were supplying shells to Codesign Furniture Australia who in turn were major suppliers of commercial furniture to government departments. When the recession hit, discretionary spending by the government came close to decimating the furniture industry and with it, Wharington’s major customers.

Since then, Recopol™ has been refocused,

redeveloped and rebranded. Wharington consulted with leading sustainability experts to redevelop the product as 100% recycled ABS and also to help communicate its benefits to furniture manufacturers. But it’s been a road paved with resistance.

“We had to make furniture to show people what you can do with these shells because people have no imagination,” says Yvette Karklins, Manager at Wharington. “So we have a range of furniture, it’s very conservative and the reason for that is we only really continue to sell to the government departments.”

Over the years, Wharington have supplied to a number of leading designers and manufacturers with their shells. One of their early clients who saw the potential of the product was Schamburg + Alvisse (now

owned by Zenith Interiors) who have used the shells in their 025 and 050 chairs. “The long-term relationship with Schamburg + Alvisse has been terrific for us,” says Yvette. “They’ve ordered thousands of shells over the last ten years.” Another one of the celebrate permutations of shells is the Ivy chair designed by Gary Galego for Stylecraft. More chairs are beginning to come onto the market using Wharington’s shells.

Yvette says the increasing demand for green furniture and a government imperative for sustainable interior environments in driving business and interest for Recopol™. Wharington are working with a growing number of manufacturers now benefiting of the locally made sustainable furniture component. “Since we’ve got the Green Tag, and because

people are more interested in sustainability, gradually, we’re finding that it’s starting to build more momentum,” says Yvette. “It’s taken a long time but the larger organisations are realising that they’ve got to be green in order to compete.”

“Also, I think it’ll be a long time before China, Taiwan or Vietnam starts sending green, sustainable furniture to Australia.”

Wharington make it very easy for manufacturers to use the shells. Ferrules for fixings are already moulded in and they encourage the manufacturers to use glove upholstery with Velcros and zips for easy removal. “It’s very simple. So if it’s simple to make, it’s simple to disassemble,” says

Yvette. “But the shell is perfectly intact and can be re-upholstered.” They also take back shells and offcuts so that, at the end of its life, the plastic doesn’t end up in landfill and instead melted down and moulded into new shells. “In a way, we’re a double loop because we’re recycling materials that would have gone to landfill and we can take back what’s been used,” Yvette reflects.

“The key thing is for us to bring back the production so that we’re back up to running the three big ovens and we would be making the moulds and shells for other furniture manufacturers. So that’s starting to happen, we’re doing less furniture but we’re doing a lot more of the shells.”

Below: 050 chair from Zenith Interiors (originally by Schamburg + Alvisse)

