Compostable composites from renewable sources

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January 2018

Images: Sheila Clark
Bio-resin
Early experiments with bio-resin

Face of bio-resin with LED, made in silicon madeleine mould

Rear of bio-resin, with LED made in silicon madeleine mould

Face of bio-resin and aluminium powder made in silicon madeleine mould
Face of bio-resin and aluminium powder with non-woven flax reinforcement, made using pobble mould
Cocoa shell waste
Face of bio-resin with cocoa shell, made using pobble mould

Detail of face of bio-resin with cocoa shell, made using pobble mould
Bio-resin and jute coffee sack, made using pobble mould
Waste jute sacking from imported coffee beans used as reinforcement material

Face of bio-resin with jute sacking reinforcement, made using pobble mould

Rear side of bio-resin and jute sacking, made using pobble mould
Face of bio-resin with jute coffee sack reinforcement showing plaster from mould, made using pobble mould

Rear face of bio-resin and jute coffee sack, made using pobble mould
Dyed jute fabric and bio-resin with aluminium powder, made using pobble mould
Glove-box lid
Laying up the mould with a gel-coat of bio-resin and jute coffee sack

Original glove-box lid in Jesmonite mould

Making the glove-box lid

Laid up mould

Detail of bio-resin glove-box lid
Glove-box lid made with bio-resin and aluminium powder, partly sanded in left corner
Glove-box lid made with bio-resin
Door panel
Silicon jacket for inner door panel
Making the inner door panel
Vacuum bagging the inner door panel

Vacuum bagging

Rear face after vacuum bagging

Peeling off the protective film
Broken part of outer door panel
Broken part of outer door panel
Detail showing flaws in the bio-resin surface in the broken part of outer door panel
Door panel: inner part bio-resin, Nextel painted outer part
Close up of bio-resin inner inner door panel part, and Nextel painted outer door panel part
Completed door
Biotex

A series of small scale formed parts for low weight panels, using renewable materials
Biotex twill weave structure, formed in poble mould

Biotex hopsack weave structure, formed in poble mould
First experiments with Biotex

Woven reflective and wool textile with Biotex, formed in poble mould

Woven metal and polypropylene textile with Biotex, formed in poble mould
Biotex hopsack weave, dyed yellow and formed in pobble mould

Rear face
Biotex twill weave, dyed black and formed in pobble mould

Rear face
Woven wool textile and Biotex, formed in pobble mould
Repeat Deco design, wool/nettle woven textile with Biotex, formed in pobble mould

Repeat snow design, wool/nettle woven textile with Biotex, formed in pobble mould
Repeat Deco design, woven wool/nettle textile with Biotex, formed in pobble mould