RIMPLAS

MATERIALS

RimPlas

A synthetic plastic used in building a huge variety of structures and items. Made from cloth and chemfuel.

Carbon Fibre

A synthetic carbon reinforced polymer material used in building a variety of structures and items. Good resistance to heat. Made via injection moulding.

Ballistic Kevlar

Ballistic Kevlar takes a combination of Kevlar and Carbon fibre and combines them as a composite metallic like material. It has good protective properties whilst also being resilient to heat. A ballistic vest is provided.

CarboPlasteel

An extremely strong carbon/plasteel laminate material used in building a variety of structures and items. Made at a smelter.

Graphene

An extremely strong synthetic carbon-based material used in building a variety of structures and items. It also has a good tolerance to heat and useful electrical properties. The material is more effective against compression or blunt related damage but still effective otherwise. It is made by advanced injection moulding.

(Also includes a process for making Plasteel.)

SYNTHETIC TEXTILES

RimRayon

An earlier semi-synthetic, RimRayon is made from wood (cellulose) and chemfuel (organic base). The properties sit between cloth and synthread. Research for RimRayon is not dependant on the production of RimPlas

RimPoly

A synthetic polymer fibre. Like RimPlas it is made from cloth and chemfuel, but it is also a byproduct of injection moulding.

CarboSynth

Synthetic Carbon-fibre based cloth. It has a good tolerance for heat.

Rimoprene

A Synthetic leather, derived from chemfuel, synthread and base leathers .

Kevlar

Kevlar is a heat-resistant and strong synthetic fibre. Typically, it is spun into ropes or fabric sheets that can be used as such or as an ingredient in composite material components. (Available with the use of the mod Medical Supplements.)

DevilSynth

Synthetic version of Devilstrand cloth. An Improvement on the base material

ElectroSteel Wool

A thin synthetic fibre made from steel and a small amount of silver.

Gold Wool

A thin synthetic fibre made from gold. This is considered a rather voluptuous fabric.

Plasteel Wool

A synthetic fibre derived from Plasteel.

(Also includes a process for making Synthread.) 

MISC SYNTHETICS

SynthBase

A synthetic precursor chemical. While it is useless on its own, it is used in the production of other synthetic materials.

Pitch

A synthetic precursor chemical. While it is useless on its own, it is used in the production of other carbon-based synthetic materials.

Asphalt

Construction material, normally made from aggregates and pitch, fast to work with and useful as a road/pathway material.

Rimica

Blocks of Rimica composite laminate. A manufactured construction material that is heat resistant and has sterile properties. A tile is provided to help maintain more sterile rooms.

Fortrimica

Blocks of fortified Rimica composite laminate. A manufactured construction material that is heat resistant. This synthetic has been fortified with the use of Plasteel.

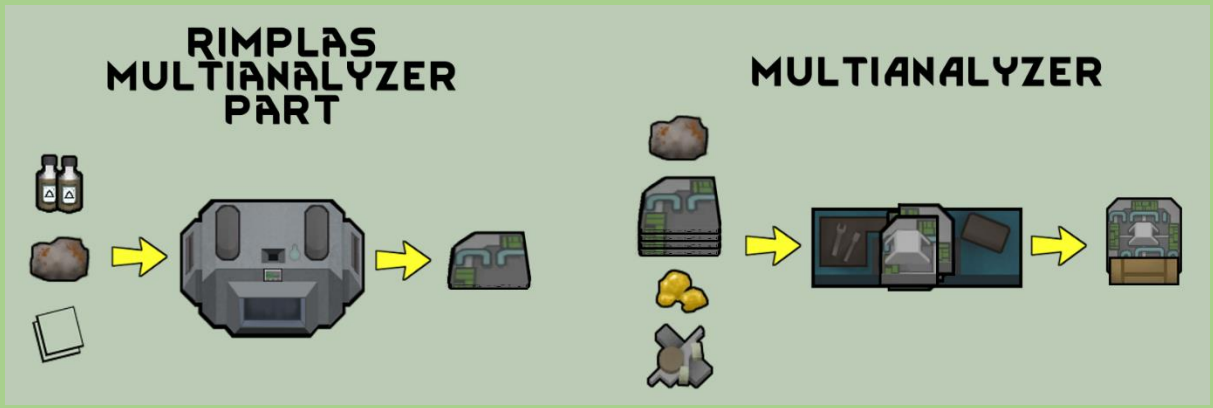
INJECTION MOULDING

Injection Moulding Machine

The Injection moulding process includes some of the synthetic production but is also designed to produce some less complex furniture items efficiently, as an alternative production method.

RimPlas Multi-Analyser Part

The mod allows you to produce a multi-analyzer without the need to have Plasteel. This is replaced with an alternative production process where the Plasteel is replaced with the use of injection moulded reinforced RimPlas housing parts. (There is a diagram provided below that summarises the process). This means you will need to research as far as Synthetics to be able to achieve this and make use of an injection moulding machine, but it removes the reliance on Plasteel. The production process is also slightly less economical and more involved than the vanilla Multianalyser building process.

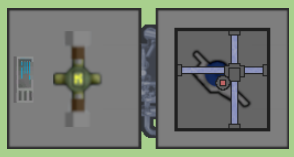


RimPlas Components

With research RimPlas synthetics include an injection moulding process for components. And although moulded one at a time the relative production times are much better than the fabrication method.

MODULAR FABRICATOR

To help with the production of components and advanced components a modular fabricator is provided. Once researched and built with the inclusion of an AI core, the machine will autonomously and efficiently produce component elements from base materials needed which consist of RimPoly and metallic wools (further details on the info card).



Modular Fabricator

Input Hopper

Output Hopper

ADVANCED SYNTHETICS

Mech Breaker

Breaks mechanoids down into their respective parts and extracts mechanites.

Mechanites

A cannister of mechanites stored under pressure.

Advanced Injection Moulding

The Advanced injection moulding machine (AI persona core to build) can be used to make hyperweave and graphene. This requires mechanites extracted from mechanoids during disassembly from the provided mechbreaker bench.

Later products include the nano-suits.

GRAPHENE TECHNOLOGY

There are some electrical power and heating/cooling items added for Graphene that have improved properties and robustness over their vanilla equivalents and a hydroponics bin that can be used to grow things anywhere you like. The vent uses Graphene's material properties to filter air based on a specific temperature range (mod options and toggle) and opens and closes itself based on this.

Power Conduit and Buried Power Conduit

Heater

Cooler

Regulator

Intelligent Vent

Hydroponics bin

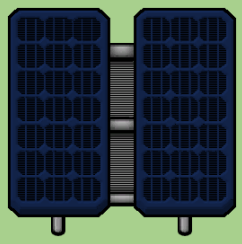
Battery

Small Battery

Portable Power

GRAPHENE POWER GENERATION

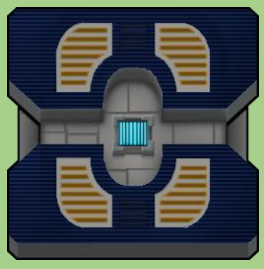
Graphene's electrical properties allow for more efficient power generation and in most cases also allows for a more compact power generator in comparison to vanilla.



Solar collector

Small solar collector

Wind Turbine

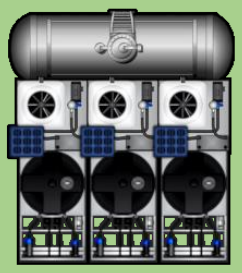


Geothermal Generator

Combined with other advanced materials there is an additional power generator, the graphene electrolyser. This uses a source of water to effectively separate into hydrogen and oxygen. These gases are then used as a fuel source in the generation of electricity with a useful net positive output.

It is smaller in size than the vanilla water turbines and does not suffer from being in proximity to a similar generator. This since most of the water source is effectively recycled for use by the generator. The generator will be more efficient if the body of water it is placed on is a river than if used with a standing body of water.

Warning: If the electrolyser is sufficiently damaged it is likely to explode.



Electrolyser Generator

With the mod “RT Fuse” it is also possible to utilise some additional circuit breakers.

 **Carbon fibre (5Kw)**

 **Graphene (10 Kw)**

Lights:

 **Ceiling Light (Steel, 20w)**

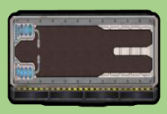
 **Graphene Ceiling light (10w)**

 **Regenerating Wall**

This powered graphene version has self-repairing properties.

 **Neurosis Security Door**

Similar to an Autodoor, this Graphene based door has additional biometric sensors that can allow it to detect if a colonist/prisoner is in an abnormal mental state and "intervene" by stunning them for a length of time, removing the mental break in the process.

 **High-tech hospital bed**

Apart from performing better than a hospital bed for operations and treatment it helps control pain, adds joy and relaxation over time and can help to control mental states (where relevant).

Graphene Nano Suit

A metallic ultra-tech body garment constructed using mechanites to arrange Graphene Nano fibres and Hyperweave into an intelligent lattice. It improves the wearers capabilities and movement, whilst helping to protect from toxins.

Shielded Graphene Nano Suit

A shielded version of the nano suit.

RIMTHERMOPLAS

RimThermoPlas foam is a synthesised expanded polymer with a low density and large surface contact area to material ratio. It is slightly flammable and will enable chemfuel alongside a silver catalyst to destabilise in a mild exothermic manner. chemfuel is mostly used up as the reagent. Once researched, the foam material can be synthesised with synthbase and RimPoly by injection moulding.

You can build complex bedrolls using leathery materials to act as a holding vessel for this reaction and allow for the bedroll to then act as a weak heating device. They will need to be topped up with a Chemfuel. These bedrolls are envisaged for use in wintry or cold conditions, though don't expect them to keep you warm in the open outdoors (ideally you will still need to find shelter). They are intended as caravan utility items so that you can readily gain some warmth inside a shelter without the complexity of sourcing electricity or other means of heating.

(Bedrolls act as heat pushers at a rate of 8-9 continuously (max temp 24C) with Chemfuel supplied).

Other items include an insulator and convector.

Foam

Bedroll

Double Bedroll

Insulator

Convector

(With the use of the mod “Insulation” you can also make RTP Insulated walls.)