```xml
<?xml version="1.0" encoding="UTF-8"?>
<enderio:recipes xmlns:enderio="http://enderio.com/recipes" xmlns:xsi="http://www.w3.
org/2001/XMLSchema-instance" xsi:schemaLocation="http://enderio.com/recipes recipes.
xsd ">


<!--
These are the built-in recipes. You cannot change this file, it is a
reference for you only and will be generated every time the game starts.
To make changes to the recipes, copy the recipes you want to change to
a file in the 'user' folder. To disable a recipe, add an attribute "disabled"
and set it to true, e.g.: <recipe name="Alloy: Electrical Steel" disabled="true" />
You can also disable all built-in recipes with the setting "loadCoreRecipes"
in the Ender IO config file, so that only your files in the 'user' folder will
be loaded. Please be advised that a number of recipes are absolutely needed,
so you will have to copy those over into a 'user' file for the game to load.
Item specifications can reference an alias, an ore dictionary name, a
block or an item. You can force the type by prefixing the value with
"oredict:", "block:" or "item:". Recipes that have items that cannot be
found in-game are either skipped or an error, depending on their "required"
attribute.
More information on the syntax can be found in the recipes.xsd file. An
XML editor will display that as tooltips when editing this file.
 -->

  <recipe name="Alloy: Electrical Steel" required="true">
    <alloying energy="10000" exp="0.5">
      <input name="ingotIron"/>
      <input name="dustCoal"/>
      <input name="itemSilicon"/>
      <output name="ingotElectricalSteel"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Electrical Steel, Variant" required="false">
    <alloying energy="10000" exp="0.4">
      <input name="ingotSteel"/>
      <input name="itemSilicon"/>
      <output name="ingotElectricalSteel"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Energetic Alloy" required="true">
    <alloying energy="10000" exp="0.7">
      <input name="dustRedstone"/>
      <input name="ingotGold"/>
      <input name="dustGlowstone"/>
      <output name="ingotEnergeticAlloy"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Vibrant Alloy" required="true">
    <alloying energy="10000" exp="1">
      <input name="ingotEnergeticAlloy"/>
      <input name="oredict:enderpearl"/>
      <output name="ingotVibrantAlloy"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Redstone Alloy" required="true">
    <alloying energy="10000" exp="0.5">
      <input name="dustRedstone"/>
      <input name="itemSilicon"/>
      <output name="ingotRedstoneAlloy"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Conductive Iron" required="true">
    <alloying energy="10000" exp="0.5">
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```xml
      <input name="dustRedstone"/>
      <input name="ingotIron"/>
      <output name="ingotConductiveIron"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Pulsating Iron" required="true">
    <alloying energy="10000" exp="0.7">
      <input name="ingotIron"/>
      <input name="oredict:enderpearl"/>
      <output name="ingotPulsatingIron"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Dark Steel" required="true">
    <alloying energy="20000" exp="0.5">
      <input name="ingotIron"/>
      <input name="dustCoal"/>
      <input name="obsidian"/>
      <output name="ingotDarkSteel"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Dark Steel, Variant" required="false">
    <alloying energy="10500" exp="0.4">
      <input name="ingotSteel"/>
      <input name="obsidian"/>
      <output name="ingotDarkSteel"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: End Steel" required="true">
    <alloying energy="20000" exp="0.5">
      <input name="oredict:endstone"/>
      <input name="ingotDarkSteel"/>
      <input name="obsidian"/>
      <output name="ingotEndSteel"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Construction Alloy" required="false">
    <alloying energy="10000" exp="0">
      <input name="ingotLead,ingotCopper,ingotSilver,ingotAluminium,ingotAluminum,
ingotTin,ingotNickel,ingotZinc,ingotPlatinum,ingotOsmium,ingotArdite,ingotCobalt,
ingotTitanium,ingotMagnesium,ingotTungsten"/>
      <input name="ingotIron"/>
      <input name="ingotLead,ingotCopper,ingotSilver,ingotAluminium,ingotAluminum,
ingotTin,ingotNickel,ingotZinc,ingotPlatinum,ingotOsmium,ingotArdite,ingotCobalt,
ingotTitanium,ingotMagnesium,ingotTungsten"/>
      <output name="CONSTRUCTION_ALLOY" amount="3" />
    </alloying>
  </recipe>

  <recipe name="Alloy: Cookie" required="true">
    <alloying energy="2000">
      <input name="FLOUR"/>
      <input name="minecraft:dye:3"/>
      <output name="minecraft:cookie" amount="8"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Cake" required="true">
    <alloying energy="2000">
      <input name="FLOUR" amount="3"/>
      <input name="oredict:egg" />
      <output name="itemCakeBase" amount="2"/>
    </alloying>
  </recipe>
```

```xml
<recipe name="Alloy: Photovoltaic Plate" required="true">
  <alloying energy="15000" exp="0.5">
    <input name="itemPowderPhotovoltaic" amount="3"/>
    <output name="itemPlatePhotovoltaic"/>
  </alloying>
</recipe>

<recipe name="Alloy: Soularium" required="true">
  <alloying energy="10000" exp="0.7">
    <input name="minecraft:soul_sand"/><!-- has no oredict entry -->
    <input name="ingotGold"/>
    <output name="ingotSoularium"/>
  </alloying>
</recipe>

<recipe name="Alloy: Fused Quartz" required="true">
  <alloying energy="5000" exp="0.5">
    <input name="gemQuartz" amount="4"/>
    <output name="enderio:block_fused_quartz:0"/>
  </alloying>
</recipe>

<recipe name="Alloy: Fused Quartz from Block" required="true">
  <alloying energy="5000" exp="0.5">
    <input name="blockQuartz"/>
    <output name="enderio:block_fused_quartz:0"/>
  </alloying>
</recipe>

<recipe name="Alloy: Fused Glass" required="true">
  <alloying energy="2500" exp="0.1">
    <input name="minecraft:glass"/><!-- don't oredict this one -->
    <output name="enderio:block_fused_glass:0"/>
  </alloying>
</recipe>

<recipe name="Alloy: Enlightened Fused Quartz" required="true">
  <alloying energy="5000" exp="0.5">
    <input name="gemQuartz" amount="4"/>
    <input name="dustGlowstone" amount="4"/>
    <output name="enderio:block_enlightened_fused_quartz:0"/>
  </alloying>
</recipe>

<recipe name="Alloy: Enlightened Fused Quartz, Upgrade" required="true">
  <alloying energy="2500" exp="0.5">
    <input name="enderio:block_fused_quartz:0"/>
    <input name="dustGlowstone" amount="4"/>
    <output name="enderio:block_enlightened_fused_quartz:0"/>
  </alloying>
</recipe>

<recipe name="Alloy: Enlightened Fused Quartz from Block, Variant 1" required="true">
  <alloying energy="5000" exp="0.5">
    <input name="blockQuartz"/>
    <input name="dustGlowstone" amount="4"/>
    <output name="enderio:block_enlightened_fused_quartz:0"/>
  </alloying>
</recipe>

<recipe name="Alloy: Enlightened Fused Quartz from Block, Variant 2" required="true">
  <alloying energy="5000" exp="0.5">
    <input name="blockQuartz"/>
    <input name="oredict:glowstone"/>
    <output name="enderio:block_enlightened_fused_quartz:0"/>
  </alloying>
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      </recipe>

      <recipe name="Alloy: Enlightened Fused Quartz from Block, Variant 3" required="true">
        <alloying energy="5000" exp="0.5">
          <input name="gemQuartz" amount="4"/>
          <input name="oredict:glowstone"/>
          <output name="enderio:block_enlightened_fused_quartz:0"/>
        </alloying>
      </recipe>

      <recipe name="Alloy: Enlightened Fused Quartz from Block, Variant 4" required="true">
        <alloying energy="2500" exp="0.5">
          <input name="enderio:block_fused_quartz:0"/>
          <input name="oredict:glowstone"/>
          <output name="enderio:block_enlightened_fused_quartz:0"/>
        </alloying>
      </recipe>

      <recipe name="Alloy: Enlightened Fused Glass" required="true">
        <alloying energy="2500" exp="0.2">
          <input name="minecraft:glass"/><!-- don't oredict this one -->
          <input name="dustGlowstone" amount="4"/>
          <output name="enderio:block_enlightened_fused_glass:0"/>
        </alloying>
      </recipe>

      <recipe name="Alloy: Enlightened Fused Glass, Upgrade" required="true">
        <alloying energy="1250" exp="0.2">
          <input name="enderio:block_fused_glass:0"/>
          <input name="dustGlowstone" amount="4"/>
          <output name="enderio:block_enlightened_fused_glass:0"/>
        </alloying>
      </recipe>

      <recipe name="Alloy: Dark Fused Quartz" required="true">
        <alloying energy="5000" exp="0.5">
          <input name="gemQuartz" amount="4"/>
          <input name="dyeBlack"/>
          <output name="enderio:block_dark_fused_quartz:0"/>
        </alloying>
      </recipe>

      <recipe name="Alloy: Dark Fused Quartz from Block, Variant 1" required="true">
        <alloying energy="5000" exp="0.5">
          <input name="blockQuartz"/>
          <input name="dyeBlack"/>
          <output name="enderio:block_dark_fused_quartz:0"/>
        </alloying>
      </recipe>

      <recipe name="Alloy: Dark Fused Quartz from Block, Variant 2" required="true">
        <alloying energy="2500" exp="0.5">
          <input name="enderio:block_fused_quartz:0"/>
          <input name="dyeBlack"/>
          <output name="enderio:block_dark_fused_quartz:0"/>
        </alloying>
      </recipe>

      <recipe name="Alloy: Dark Fused Glass" required="true">
        <alloying energy="2500" exp="0.2">
          <input name="minecraft:glass"/><!-- don't oredict this one -->
          <input name="dyeBlack" amount="2"/>
          <output name="enderio:block_dark_fused_glass:0"/>
        </alloying>
      </recipe>

      <recipe name="Alloy: Dark Fused Glass, Upgrade" required="true">
        <alloying energy="1250" exp="0.2">
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        <input name="enderio:block_fused_glass:0"/>
        <input name="dyeBlack" amount="2"/>
        <output name="enderio:block_dark_fused_glass:0"/>
    </alloying>
</recipe>

<recipe name="Alloy: Green Dye" required="true">
    <alloying energy="2000" exp="0.25">
        <input name="itemPlantgreen" amount="12"/>
        <input name="oredict:slimeball"/>
        <output name="ORGANIC_GREEN_DYE" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Green Dye, Variant" required="true">
    <alloying energy="1500" exp="0.125">
        <input name="itemPlantgreen" amount="6"/>
        <input name="oredict:egg"/>
        <output name="ORGANIC_GREEN_DYE"/>
    </alloying>
</recipe>

<recipe name="Alloy: Green Dye, Oredict" required="true">
    <alloying energy="2000" exp="0.25">
        <input name="dyeGreen,-ORGANIC_GREEN_DYE" amount="2"/>
        <input name="oredict:slimeball"/>
        <input name="dustCoal,dustCharcoal" amount="2"/>
        <output name="ORGANIC_GREEN_DYE" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Green Dye, Oredict Variant" required="true">
    <alloying energy="1500" exp="0.125">
        <input name="dyeGreen,-ORGANIC_GREEN_DYE"/>
        <input name="oredict:egg"/>
        <input name="dustCoal,dustCharcoal"/>
        <output name="ORGANIC_GREEN_DYE"/>
    </alloying>
</recipe>

<recipe name="Alloy: Brown Dye" required="true">
    <alloying energy="2000" exp="0.25">
        <input name="itemPlantbrown" amount="12"/>
        <input name="oredict:slimeball"/>
        <output name="ORGANIC_BROWN_DYE" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Brown Dye, Variant" required="true">
    <alloying energy="1500" exp="0.125">
        <input name="itemPlantbrown" amount="6"/>
        <input name="oredict:egg"/>
        <output name="ORGANIC_BROWN_DYE"/>
    </alloying>
</recipe>

<recipe name="Alloy: Brown Dye, Oredict" required="true">
    <alloying energy="2000" exp="0.25">
        <input name="dyeBrown,-ORGANIC_BROWN_DYE" amount="2"/>
        <input name="oredict:slimeball"/>
        <input name="dustCoal,dustCharcoal" amount="2"/>
        <output name="ORGANIC_BROWN_DYE" amount="2"/>
    </alloying>
</recipe>

<recipe name="Alloy: Brown Dye, Oredict Variant" required="true">
    <alloying energy="1500" exp="0.125">
        <input name="dyeBrown,-ORGANIC_BROWN_DYE"/>
```

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      <input name="oredict:egg"/>
      <input name="dustCoal,dustCharcoal"/>
      <output name="ORGANIC_BROWN_DYE"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Black Dye" required="true">
    <alloying energy="2000" exp="0.25">
      <input name="dustCoal,dustCharcoal" amount="6"/>
      <input name="oredict:slimeball"/>
      <output name="ORGANIC_BLACK_DYE" amount="2"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Black Dye, Variant" required="true">
    <alloying energy="1500" exp="0.125">
      <input name="dustCoal,dustCharcoal" amount="3"/>
      <input name="oredict:egg"/>
      <output name="ORGANIC_BLACK_DYE"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Red Dye" required="true">
    <alloying energy="15000" exp="1.0">
      <input name="minecraft:beetroot"/>
      <input name="itemClay" amount="3"/>
      <input name="oredict:egg" amount="6"/>
      <output name="dyeRed" amount="12"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Dead Tree" required="true">
    <alloying energy="2000" exp="0.05">
      <input name="treeSapling"/>
      <output name="minecraft:deadbush"/>
    </alloying>
  </recipe>

  <recipe name="Clayed Glowstone" required="true">
    <alloying energy="5000">
      <input name="dustGlowstone"/>
      <input name="oredict:itemClay"/>
      <output name="itemClayedGlowstone" amount="2"/>
    </alloying>
  </recipe>

  <recipe name="Ender Pearl Nuggets" required="true">
    <alloying energy="2000">
      <input name="nuggetEnderpearl" amount="9"/>
      <output name="oredict:enderpearl"/>
    </alloying>
    <!-- Note: The same inputs as a 'crafting' gives dustEnderPearl, see sagmill.xml --
>
  </recipe>

  <recipe name="Chassis">
    <alloying energy="3600" exp="1">
      <input name="SIMPLE_CHASSIS"/>
      <input name="dyeMachine"/>
      <output name="CHASSIS"/>
    </alloying>
  </recipe>

  <recipe name="Enhanced Chassis">
    <alloying energy="3600" exp="1">
      <input name="END_STEEL_CHASSIS"/>
      <input name="dyeEnhancedMachine"/>
      <output name="ENHANCED_CHASSIS"/>
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    </alloying>
  </recipe>

  <recipe name="Soul Chassis">
    <alloying energy="3600" exp="1">
      <input name="SIMPLE_CHASSIS"/>
      <input name="dyeSoulMachine"/>
      <output name="SOUL_CHASSIS"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Industrial Insulation" required="true">
    <alloying energy="5000" exp="0.5">
      <input name="dustLapis"/>
      <input name="minecraft:wool"/>
      <input name="INSULATION_METAL"/>
      <output name="INDUSTRIAL_INSULATION"/>
    </alloying>
  </recipe>

  <recipe name="Alloy: Nethercotta" required="true">
    <alloying energy="20000" exp="1">
      <input name="ingotBrickNether"/>
      <input name="cropNetherWart" amount="4" />
      <input name="oredict:itemClay" amount="6" />
      <output name="ingotBrickNetherGlazed"/>
    </alloying>
  </recipe>

  <recipe name="Infinity Goop" required="true">
    <alloying energy="5000">
      <input name="POWDER_INFINITY"/>
      <input name="dustCoal"/>
      <output name="INFINITY_GOOP"/>
    </alloying>
  </recipe>

  <recipe name="Infinity Goop, Charcoal" required="false">
    <alloying energy="5000">
      <input name="POWDER_INFINITY"/>
      <input name="dustCharcoal"/>
      <output name="INFINITY_GOOP"/>
    </alloying>
  </recipe>

</enderio:recipes>
```