

Product Information – Recycled Wax

General Properties

- As a pioneer of recycling wax, Blayson is uniquely qualified to provide high quality recycled wax products
- Recycling gives both economic and environmental benefits and is of increasing importance to manufacturing industry
- Customers used autoclave wax is returned to Blayson for reprocessing in a 'closed loop' system where it is cleaned & filtered, additions are made to adjust properties to the agreed specification, and returned to the customer as either :

Reconstituted wax for pattern production

or

Reclaim wax for runner production

- allowing a complete range patterns and runners to be produced
- with significant cost savings
- without sacrificing quality
- with no reduction in quality

Quality Control

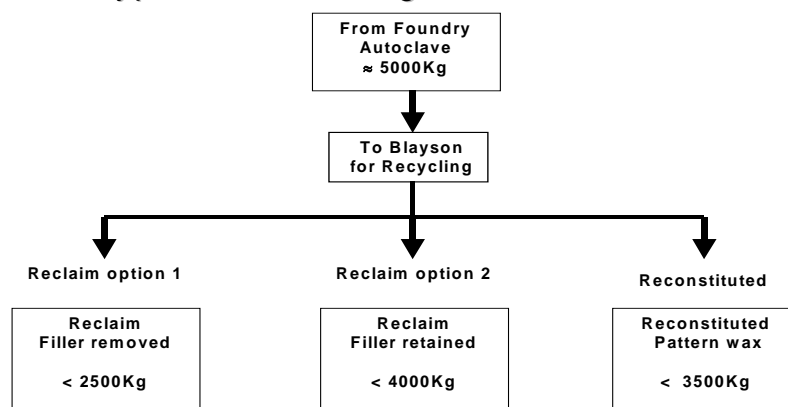
- It is essential for the production of high quality castings that wax properties are correctly and tightly controlled
- The strict quality control procedures employed by Blayson ensure consistency and compliance with specifications
- cmf recommended tests and SPC form the basis of the quality regime:
 - melting (drop) point
 - congealing point
 - ash content
 - penetration
 - viscosity



How to use Recycled wax

- Recycled wax is used in exactly the same way as virgin wax
- Wax should be melted in a controlled manner and overheating must be avoided. Blayson recommends a 120°C maximum melt temperature. Overheating can damage the wax structure which will affect injection performance
- Wax melting and holding tanks should be maintained at the desired injection temperature and agitated at 10 to 15 rpm in order to keep the filler in suspension. Agitation also helps maintain uniform temperature distribution
- Recycled wax can be injected across a wide range of temperatures (see individual technical data sheets for product specific details)
- The temperature profile from melting, holding tank and nozzle should be balanced and close to the required injection temperature
- Wax is a poor heat conductor and changes in temperature settings can take a long time to take effect, at least 12 hours should be allowed
- Adjustments should be to injection pressure, flow rate and hold time in the first instance
- Once injected, parts should be handled with care during removal from the die to avoid distortion
- Parts should be maintained in a stable position for 24 hours after injection in order to become fully set prior to assembly
- Patterns and assemblies should be cleaned with a purpose made pattern wash such as 'Trisol 60 Plus' prior to prime coat application

Typical Processing Route for Used Wax



The above is indicative of likely volumes of recycled wax achievable in the different forms and combinations available. Actual volumes are dependent on the amount of water and contaminants (e.g. refractory material) present in the autoclave wax.