

Plantic® Injection Molding Resins for Seedling & Plant Pots



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Recommended Plantic® Grade

WR700

Background

Seedling punnets and planter pots are traditionally made of durable plastic such as polypropylene. These items successfully perform the function of containing the seeds and plants throughout their propagation and growth, including multiple handling and transport events at nurseries and retail outlets, but are sent to landfill once the plants have been planted out into garden beds.

Plantic® pots, however, offer the opportunity to dispose the pots into domestic compost, where they will biodegrade to form compost for future plantings. And with innovative pot design, it is possible to plant both pot and plant together, avoiding the need to disturb the sensitive root systems. The pot will biodegrade in the soil, leaving the plant to flourish.

Status

Plantic® WR700 – a water-resistant Plantic® grade – has been successfully molded into several sizes of planter pots. These shelf-stable pots completely biodegrade in less than one month when placed in a typical domestic compost environment (see photos on left).

Process of Biodegradation in Compost



Week 0



Week 1



Week 2



Week 3



Week 4



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Case Study



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WR700 planter pots will effectively contain a plant and potting mix, with regular watering to sustain plant growth. After approximately 12 weeks, mould growth is observed on the pot though it continues to maintain its integrity.



Large department stores have shown interest in Plantic[®] pots for presenting an environmental option for ornamental and gift plants. Sample pots have been supplied.

Plantic R&D is developing new generation water-resistant grades with enhanced physical properties to better accommodate automated seedling planting.

Potential Market

Plantic[®] can be introduced into horticultural products via large nurseries that can influence their suppliers to offer Plantic[®] alternatives, or through horticultural suppliers who are keen to differentiate themselves from their competitors by offering biodegradable alternatives to existing products.

The success of items for domestic gardening will depend on local legislation and recycling opportunities for recycling of traditional PP punnets.

Material Safety Data Sheet

Contact Plantic Technologies for a copy of the injection molding Material Safety Data Sheet.

Cross Reference

See also the Biodegradable Lethal Ovitrap Case Study.

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