

## Comparison Between Cotton Pads and Melt-Blown Polypropylene Pads (Single Use)

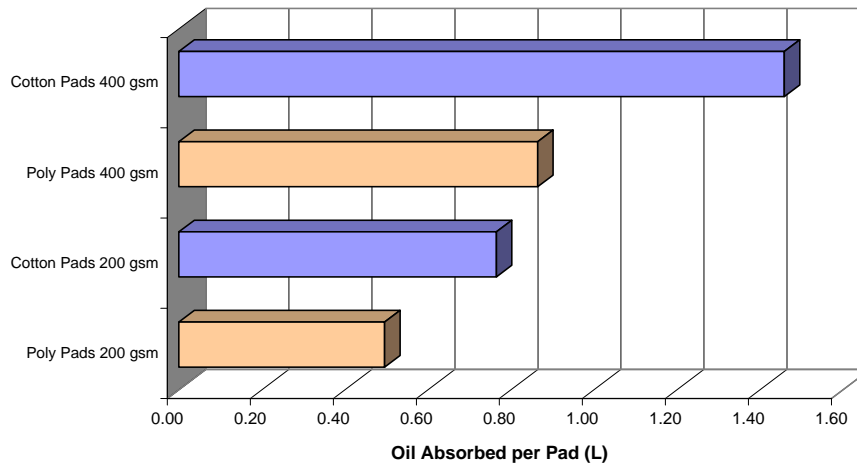


Rev. May 2007

Conducted in-house by Enretech Australasia P/L based on ASTM 726-99 Test Method for Type I sorbents.  
Test Liquid: Used Sump Oil (approximately 25 C)

	BULK DENSITY				
	Pad Size	Pad Wt. (g)	Measured Density (gsm)	Measured Thickness	Maximum Oil Absorbed per Pad (L)
Poly Pads 200 gsm	40cm x 51cm	38.7	190	2 mm	0.50
Cotton Pads 200 gsm	45cm x 45cm	43.4	214	4mm	0.76
Poly Pads 400 gsm	50cm x 40cm	91.6	458	4 mm	0.86
Cotton Pads 400 gsm	45cm x 45cm	87.1	430	8mm	1.46

### One Pad Absorbs How Much Oil?



### COMPARISON OF FEATURES

	Polypropylene Pads	Cotton Pads
Disposal to Landfill	Poly pads are plastic and thus are not biodegradable. The half-life of a poly pad in a landfill is around 300 years. They thus take up ever increasing landfill space.	Cotton pads are made from 100% organic cellulose and completely biodegrade in landfill over time. Their half life is around 60 days.
Disposal via Incineration	Poly pads often contain stabilisers and thus can only be incinerated by high temperature, otherwise they may release toxic emissions.	Cotton pads are readily incinerated at lower temperatures. Organic cellulose combusts to carbon (soot), carbon dioxide and water.
UV Degradation	Even with added stabilisers, many poly pads can disintegrate quickly when exposed to UV in sunlight. Pads turn to powder and become ineffective.	Cotton pads have a high tolerance to sunlight and are not nearly as susceptible to UV degradation.
Manufacture	Poly pads are made from non-renewable petroleum. They require lots of energy in their multiple stages of manufacture and thus have a very large greenhouse gas expenditure.	Our cotton pads are made with off-spec cotton fibres, left over after ginning. They are made from a natural, renewable resource, involve only minor inputs and have a very low GHG footprint.
Performance	Poly pads absorb quickly but tend to be thinner and have lower oil holding capacity than cotton pads. Poly pads also tend to more easily release oil under pressure (as they are designed to do).	Cotton pads absorb oil slightly more slowly than poly but absorb more total oil and do not release as much oil when picked up.
Environmental Toxicity	If accidentally released in the environment, poly pads will not biodegrade and will eventually re-release the oil they have absorbed. Poly pads may break down to plastic powder under strong sunlight (UV).	If accidentally released in the environment, cotton pads biodegrade much more readily, and are thus not a long-term environmental risk. Pads biodegrade only after their absorbed oil has biodegraded.