

SIMPLE METHODS FOR IDENTIFICATION OF VIRGIN PLASTICS

PE PP PA POM PETP/PBTP PC PMMA PVC PEEK PPS PVDF PTFE PSU PEI PAI PI PBI

behaviour in water:

floats (density < 1 g/cm³)

PE PP

sinks (density > 1 g/cm³)

PA POM PETP/PBTP PC PMMA PVC PEEK PPS PVDF PTFE PSU PEI PAI PI PBI

behaviour in water, saturated with kitchen salt (NaCl):

floats (density < 1,22 g/cm³)

PE PP PA

PC PMMA

sinks (density > 1,22 g/cm³)

POM PETP/PBTP

VVC PEEK PPS PVDF PTFE PSU PEI PAI PI PBI

behaviour on burning:

burns very easily, keeps on burning when removed from the flame

PE PP

POM

PMMA

burns in the flame, extinguishes slowly or not at all outside the flame

PA

PETP/PBTP

PSU

difficult to ignite, extinguishes when removed from the flame

PC

VVC PEEK PPS PVDF

PEI PAI

does not burn, just glows

PTFE

PI PBI

colour of the flame:

bright yellow flame

PETP/PBTP PC

PVDF

PSU PEI

blue flame with yellow tip

PE PP

bluish flame with yellow edge, fibre forming

PA

clear smokeless blue, almost invisible flame

POM

yellow, edge of flame is slightly green

VVC

no flame, just glows

PTFE

PI PBI

formation of soot:

burns sooty

PETP/PBTP PC

VVC

no or almost no formation of soot

PE PP PA POM

PMMA

odor of vapors:

very irritating (formaldehyde)

POM

irritating (HF)

PVDF PTFE

sweetish irritating

PETP/PBTP

paraffin-like odor (candle wax)

PE

slight paraffin-like odor (candle wax)

PP

sweetish fruity

PMMA

similar to burnt horn

PA

typical sulphur-like (rotten eggs)

PPS

test with a copper wire (Beilstein test):

positive (green or blue-green flame)

VVC



Alperton Engineering Ltd

Dublin Industrial Estate,
Glasnevin, Dublin11, Ireland

www.alperton.com info@alperton.ie

Phone +353 1 8306277