

# PLASTICS IDENTIFICATION FLOW CHART

**PLASTIC MATERIALS**

PRESS A HEATED METAL TIP AGAINST THE SAMPLE, DOES IT GO SOFT?

**THERMOPLASTIC**

DOES NOT SOFTEN

**THERMOSETTING**

FLOATS

DROP A SMALL SAMPLE IN WATER

SINKS

**POLYOLEFINS**

**ALL OTHERS**

BURN A SMALL SECTION OF THIS SAMPLE

BURN A SMALL SECTION OF THIS SAMPLE

NO FLAMES

CONTINUES TO BURN

YES

NO

DRIPS

DRIPS

BURN A SMALL SECTION OF THIS SAMPLE

**SELF-EXTINGUISHING**

**CONTINUES TO BURN**

**MATERIAL OBSERVATIONS**

Melamine Formaldehyde

Phenol Formaldehyde

Urea Formaldehyde

**COLOUR OF FLAME**

YELLOW WITH BLUE TIP

YELLOW

YELLOW WITH GREEN/BLUE EDGE

**ODOUR**

FISH LIKE

PHENOL

FORMALDEHYDE

**OTHER CHARACTERISTICS**

SWELLS & CRACKS

MAY OR MAY NOT BE SELF EXTINGUISHING

SWELLS & CRACKS

**UNSATURATED POLYESTER**

**SILICONE**

**EPOXY**

YELLOW WITH BLUE EDGES

BRIGHT YELLOW

YELLOW

FISH LIKE

PHENOL

PUNGENT AMINE

BLACK SMOKE WITH SOOT

CONTINUES TO BURN

BLACK SMOKE

**SELF-EXTINGUISHING**

DRIPS

NO

YES

NO

**MATERIAL OBSERVATION**

PE

PP

TPX

CTFE

FLOURO POLYMERS

PS

HIPS

SAN

ABS

PMMA

POM

Celluloses

PET

Poly-Urethanes (TPUR)

NYLON

Poly-Sulphone

Poly-Carbonate

PPE

PVC

**COLOUR OF FLAME**

BLUE WITH YELLOW TIP

BLUE WITH YELLOW TIP

BLUE

DOES NOT BURN

DOES NOT BURN

YELLOW

YELLOW

YELLOW

YELLOW

YELLOW

YELLOW

YELLOW WITH SPARKS

YELLOW WITH BLUE EDGES

YELLOW

BLUE WITH YELLOW TIP

ORANGE

ORANGE OR YELLOW

ORANGE OR YELLOW

YELLOW WITH GREEN EDGES

**ODOUR**

PARAFFIN

ACRID OR DIESEL FUMES

ACETIC ACID

STYRENE ODOUR

STYRENE AND RUBBER

STYRENE AND BITTER

BITTER AND RUBBER

METHYLATED SPIRITS

FORMALDEHYDE

VINEGAR

BURNING RUBBER

FAINT APPLE

BURNT WOOL OR HAIR

ODOUR OF SULPHUR

PHENOL

PHENOL

HYDRO-CHLORIC ACID

**SPEED OF BURNING**

FAST

SLOW

FAST

NOT APPLICABLE

NOT APPLICABLE

FAST

FAST

FAST

SLOW

FAST

SLOW

FAST

FAST

FAST

SLOW

FAST

SLOW

SLOW

DOES NOT BURN

**OTHER FEATURES**

SCRATCHES WITH FINGER NAIL

DOES NOT SCRATCH WITH FINGER NAIL

WATER CLEAR

NOT APPLICABLE

NOT APPLICABLE

DENSE SMOKE WITH SOOT

BLACK SMOKE WITH SOOT

BLACK SMOKE WITH SOOT

BLACK SMOKE WITH SOOT

NO SMOKE

NO SMOKE

BLACK SMOKE WITH SOOT

BLACK SMOKE WITH SOOT

SLIGHT BLACK SMOKE

BUBBLES AT FLAME FRONT

BLACK SMOKE WITH SOOT

BLACK SMOKE WITH SOOT

DIFFICULT TO IGNITE

WHITE ACRID SMOKE