



**PLASTIC MATERIALS**

**Thermoplastics**

Softens

*Press a hot soldering iron or a hot rod against the sample.*

Remains hard

**Thermosets**

*Self-extinguishing*

*Burn a small section of the sample*

*Continues to burn*

Material Observations	Melamine formaldehyde	Phenol formaldehyde	Urea formaldehyde
Colour of flame	Yellow with blue tip	Yellow	Yellow or green / blue edge
Odour	Fish like	Phenol	Formaldehyde
Other Characteristics	Swells and cracks	May or may not be self-extinguishing	Swells and cracks

Material Observations	Unsaturated polyester	Silicone	Epoxy
Colour of flame	Yellow with blue edges	Bright Yellow	Yellow
Odour	Sour cinnamon	None	Pungent amine
Other Characteristics	Black smoke with soot	Continues to burn	Black smoke

**Polyolefins**

Floats

*Drop a small sample in water*

Sinks

**All Others**

*Burn a small section of the sample*

*Burn a small section of the sample*

*No flames*

*Continues to burn*

*Drips*

*Drips*

*Yes*

*No*

*Yes*

*No*

PTFE  
CTFE  
PVF

Material Observations	PE	PP	TPX	CTFE	PTFE	PVF
Colour of flame	Blue with yellow tip	Blue with yellow tip	Blue	Does not burn	Dose not burn	Dose not burn
Odour	Paraffin	Acrid or diesel fumes		Acetic acid		Acidic
Speed of burning	Fast	Slow	Fast	Not applicable	Not applicable	Not applicable
Other Characteristics	Scratches with fingemil	Does not scratches with fingemil	Water clear			

*Self-extinguishing*

PS	HIPS	SAN	ABS	PMMA	POM	Cellulosics	PET	PU	Nylon PC PPO Polysulfone PVC
Yellow	Yellow	Yellow	Yellow	Yellow	Blue	Yellow with sparks	Yellow with blue edges	Yellow	
Styrene Odour	Styrene and rubber	Styrene and bitter	Bitter and rubber	Methylated spirits	Formaldehyde	Vinegar	Burning rubber	Faint apple	
Fast	Fast	Fast	Slow	Fast	Slow	Slow	Fast	Fast	
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	

*Drips*

*Yes*

*No*

Material Observations	Nylon	Poly-Sulfone	PC	PPO	PVC
Colour of flame	Blue with yellow tip	Orange	Orange or yellow	Orange yellow	Yellow with green edges
Odour	Burnt wool or hair	Odour of sulphur	Phenol	Phenol	Hydrochloric acide
Speed of burning	Slow	Fast	Slow	Slow	Slow
Other Characteristics	Froths	Black smoke with soot	Black smoke with soot	Difficult to ignite	White smoke