

## General Purpose Polystyrene (GPPS)

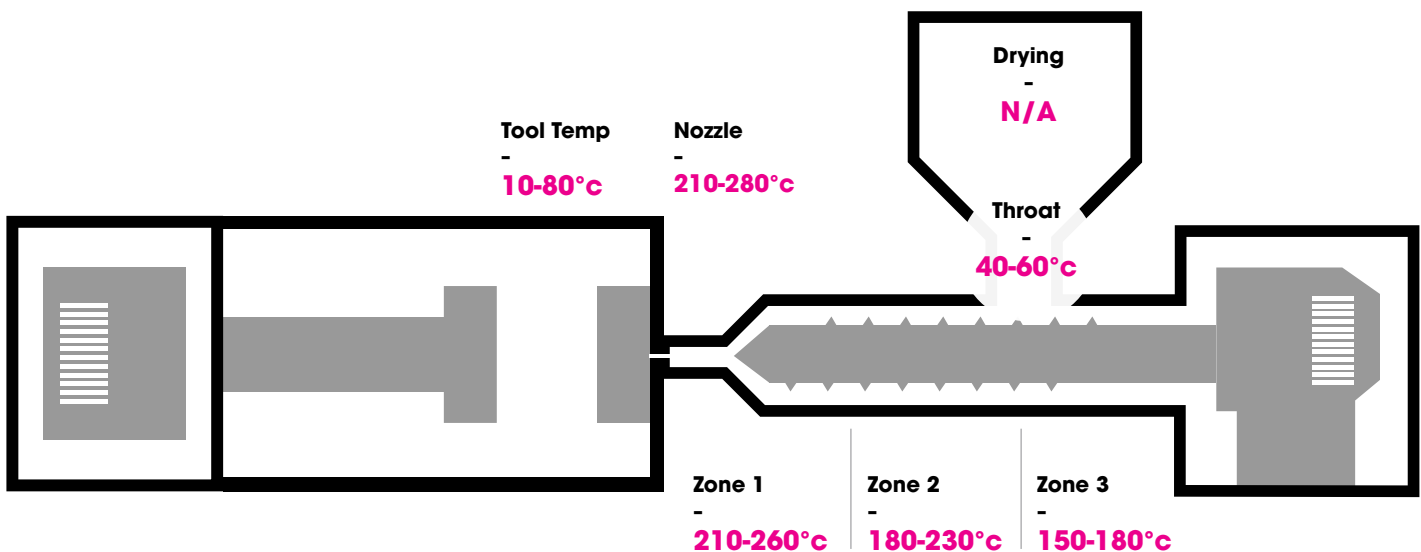
### General Description

An amorphous, rigid and clear material. Material is brittle but has excellent dimensional stability. GPPS is a relatively low cost material used in production of disposable consumer products and packaging.

GPPS can be coloured easily, to produce solid or transparent tints. In its natural state grade will often have a blue/grey or straw coloured edge tint.

### Pre-Production

GPPS is not hygroscopic, so drying should not be necessary. Material should be stored dry environment away from strong sunlight, stock rotation should be enforced.



### Processing notes

- Injection Speeds. As high as possible to ensure good surface finish
- Avoid high screw speeds unless essential.
- Back pressure to be set as low as possible to achieve consistent shot size and colour dispersion.
- GPPS is heat stable but will yellow if left in the barrel too long, residence time should not exceed 5 minutes


### Tool requirements

- Shrinkage. 0.4%-0.7%. Virtually no post production Shrinkage
- Venting should be considered to avoid burning at fast injection speeds
- To achieve high gloss finish, a high polished surface will be required
- Due to the brittle nature of GPPS draft angles should be used to prevent cracking on ejection

### Post Production

- GPPS often used as purge for other materials, so specific requirement for emptying barrel.
- No post production conditioning of parts required

### General Purpose Polystyrene (GPPS) Portfolio

Supplier	Material	Brand Name
	GPPS	Total GPPS

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