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GRADE CODING Xytron™ PPS grades.

MACHINING

With excellent mechanical properties, Xytron[™] PPS can be machined with conventional metal-working tools. Tungsten carbide or diamond tipped tools is recommended to use for machining all Xytron[™] PPS compounds. Extruded Xytron[™] PPS shapes can be machined to form components for many applications.

- a) Keep tools sharp and cool in order to avoid excessive frictional heat which can result in localized melting or compromised surface finish.
- b) Optimize cutting speed based on the operation:
 - i. 60-200m/min for drilling;
 - ii. 200-500 m/min for milling and turning;
 - iii. 500-800 m/min for sawing.
- c) Adjust feed rate depending on the process, considering 0.1-0.5 mm/rev for turning and drilling. Please consider that tool wear increases at lower feed rates and can impair the quality of the cut surface.
- d) Use ethylene glycol or oil-based fluids for cooling during the machining process.
- e) Avoid burr formation in thread cutting by using double-toothed chasers.
- f) Consider a tool angle of approximately 10°.
- g) Up to 3.2mm cuts can be achieved. Finish cuts should remove <= 0.13mm of the material.

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