PROCESSING GUIDE

Edgetek™ PKE

SPECIALTY ENGINEERED POLYKETONE FORMULATIONS

AVIENT™

EDGETEK™ PKE POLYKETONE FORMULATIONS

The Edgetek™ ET8900 Series consists of glass-filled and high impact specialty engineered polyketone (PK) thermoplastics. These formulations provide excellent chemical resistance, low moisture uptake, excellent dimensional stability, and high impact and wear resistance.

Injection Molding Parameters

The barrel temperatures below should be used as a reference point. Actual melt temperatures should be measured using a pyrometer to ensure consistent and accurate processing.

BARREL TEMPERATURES	ENGLISH (°F)		METRIC (°C)		COMMENTS
Zone 1 - Rear	420° F	460° F	216° C	238° C	Long residence times are not advised. It is not recommended to shut down or pause running with PKE in the barrel.
Zone 2 - Center	430° F	470° F	221° C	243° C	
Zone 3 - Front	440° F	480° F	227° C	249° C	
Nozzle	450° F	480° F	232° C	249° C	

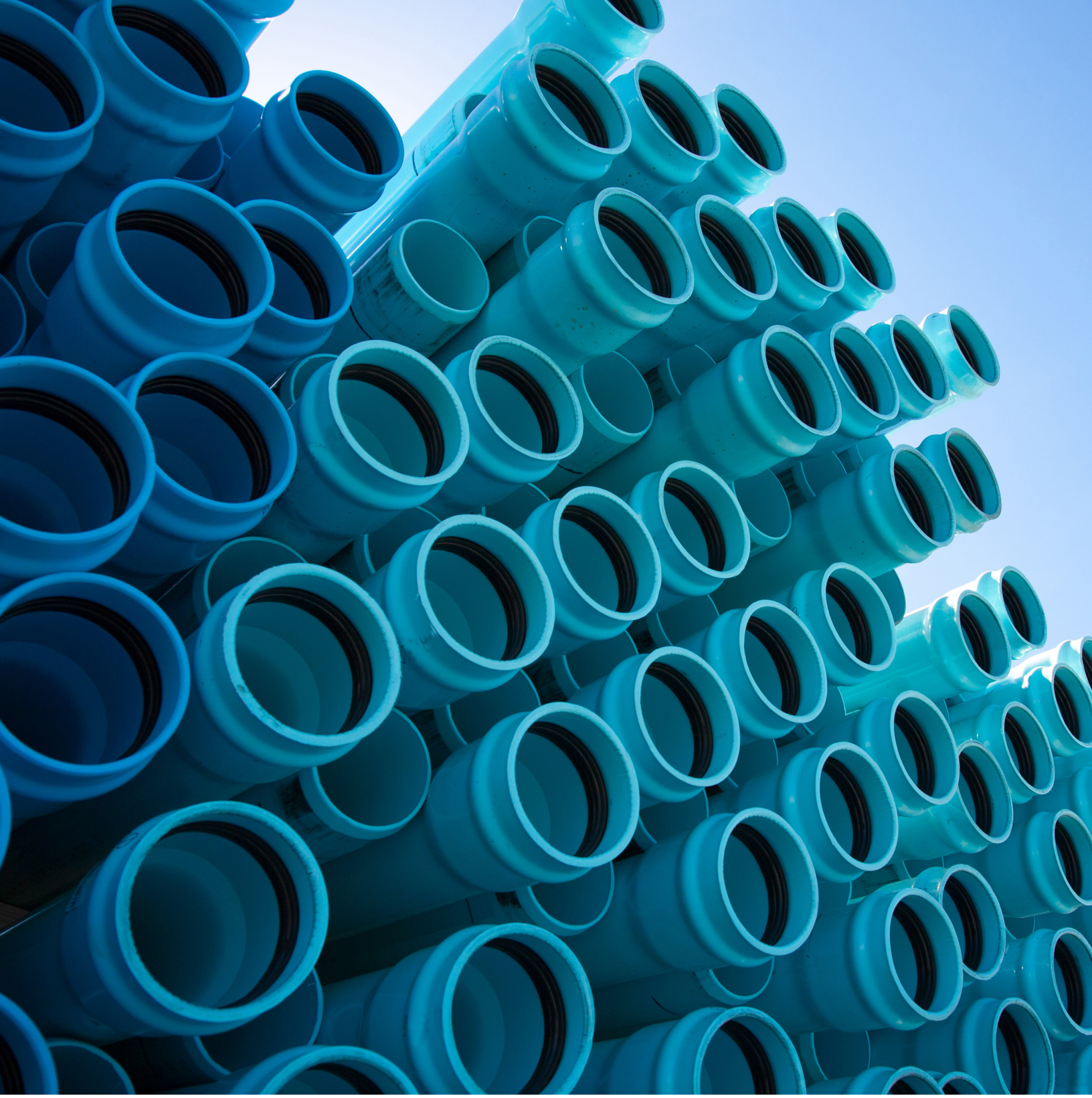
MELT & MOLD TEMPERATURES	ENGLISH (°F)		METRIC (°C)		COMMENTS
Melt Temperature	450° F	480° F	232° C	249° C	After processing, always purge residual PKE materials with fractional melt flow HDPE or PP.
Mold Temperature	150° F	200° F	66° C	93° C	

DRYING CONDITIONS	ENGLISH (°F)	METRIC (°C)	COMMENTS
Temperature	180° F	82° C	Drying not required.
Duration	2–3 Hours		
Moisture Level Allowable	N/A		

PROCESSING	
Regrind	Can be used up to 20%, but material should be requalified or retested to ensure that the loss in mechanical properties is not significant enough to cause part or application failure.
Screw Speed	Low–moderate
Injection Velocity	1–3 inch per second
Back Pressure	Low–moderate
Pack Pressure	60–80% of max injection pressure
Hold Pressure	40–60% of max injection pressure
Cool Time	10–30 seconds (depends on part geometry and dimensional stability)
Residence Time	Long residence times are not advised

Notes

These preliminary guidelines are based on lab results. These values are for guidance only and may not reflect actual process. Using these guidelines is not a guarantee of good parts.



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