

» PROCESSING GUIDE

Edgetek™ PKE

SPECIALTY ENGINEERED
POLYKETONE FORMULATIONS



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		

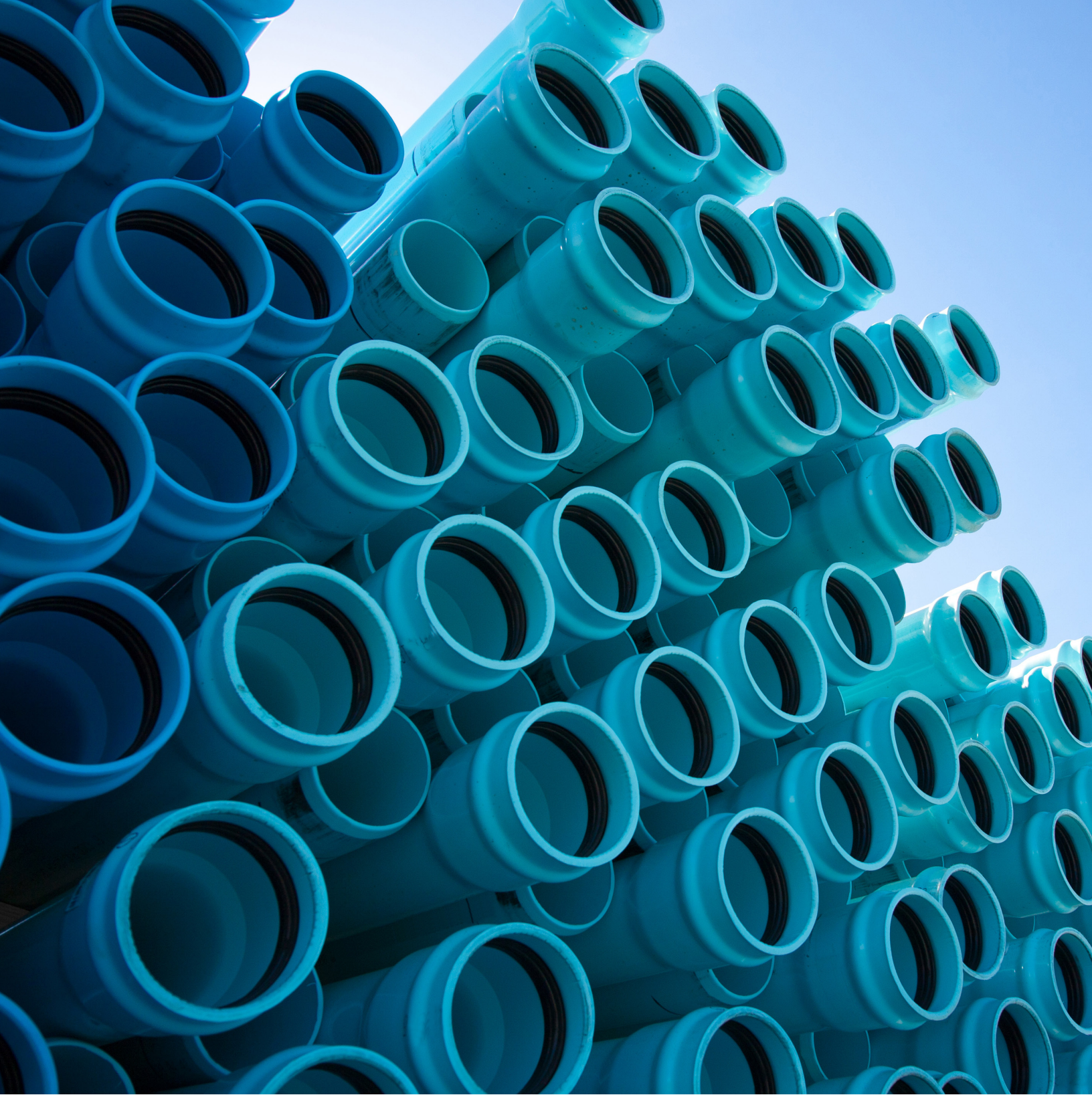
PROCESSING

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.





1.844.4AVIENT
www.avient.com



Copyright © 2022, Avient Corporation. Avient makes no representations, guarantees, or warranties of any kind with respect to the information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the information. Avient makes no warranties or guarantees respecting suitability of either Avient's products or the information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the information and/or use or handling of any product. AVIENT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the information or products reflected by the information. This literature shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.