

# CLTE (Coefficient of Linear Thermal Expansion)

The relative expansion divided by the deviation of the measured temperature range is called the material's coefficient of linear thermal expansion, and its value usually varies with temperature.

## A. Test Method

Table : Procedure of CLTE Test

Step	Description
1	Inject specimen and apply fixed temperature range according to ASTM D696 method.
2	Increase the temperature from -20°C to 60°C.
3	Measure dimensional change of the specimen in MD and TD direction.
4	The MD refers to the flow direction of resin in the injection molded specimen, TD refers to the direction perpendicular to the flow of resin.

Image : CLTE Tester

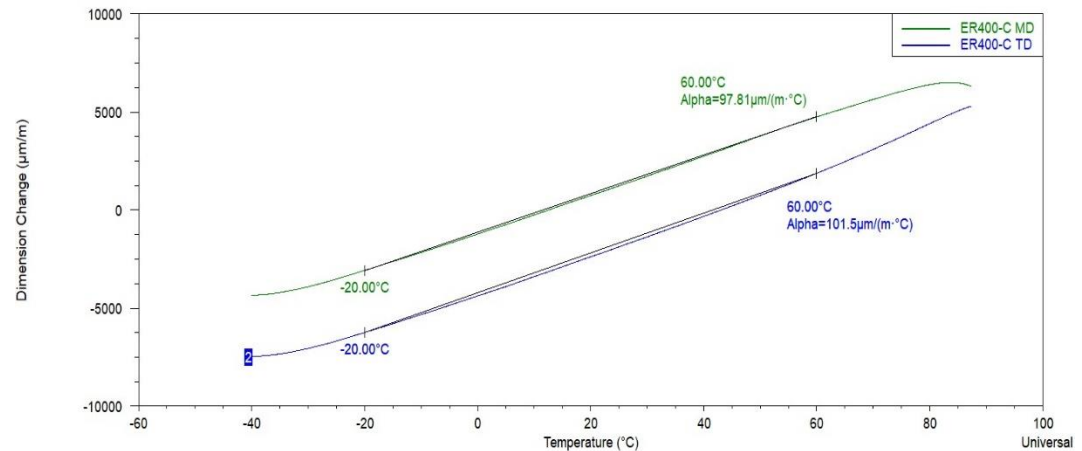


## B. Test Result

Table : CLTE by the Direction of Resin Flow

Product	Test Result	
	Machine Direction ( $\mu\text{m}/(\text{m}\cdot^\circ\text{C})$ )	Trans-Direction ( $\mu\text{m}/(\text{m}\cdot^\circ\text{C})$ )
LG ABS ER400-C	97.81	101.5

Figure : CLTE by the Direction of Resin Flow



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