

AIRFOIL DESIGN SPECIFICATIONS

The parameters in the following table must be specified to design an airfoil for a given application. Values for the parameters are usually determined from the preliminary design of the application. It is desirable that a priority be established for each parameter. The specifications are often refined during the airfoil design process. See [Airfoil/Application Design Integration](#).

Parameter	Value	Reynolds Number	Mach Number	Priority
Minimum lift coefficient $c_{l,min}$				
Maximum lift coefficient $c_{l,max}$				
Lower limit of low-drag, lift-coefficient range $c_{l,ll}$				
Upper limit of low-drag, lift-coefficient range $c_{l,ul}$				
Zero-lift pitching-moment coefficient $c_{m,0}$				
Thickness t/c				
Laminar- or turbulent-flow? <input type="checkbox"/> Laminar <input type="checkbox"/> Turbulent				
Maximum lift coefficient independent of roughness? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Stall characteristics:				
Flaps: <input type="checkbox"/> None <input type="checkbox"/> Simple <input type="checkbox"/> Slotted <input type="checkbox"/> Fowler <input type="checkbox"/> Slat				
Comments:				

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