Kutta Cond.

Let the top and bottom of the dashed line approach the vortex sheet i.e., let $dn \to 0$.

$$\therefore \gamma \, ds = (u_1 - u_2) \, ds$$

$$\boxed{\gamma = u_1 - u_2}$$

It states that the local jump in tangential velocity across the vortex sheet is equal to the local sheet strength.

At the T.E:

$$\gamma(TE) = \gamma(a) = V_1 - V_2$$

for finite T.E. ; $V_1 = V_2 = 0$

for cusped T.E. ; $V_1 = V_2 \neq 0$

$$\boxed{\gamma(TE) = 0}$$

$\therefore$ The Kutta condition expressed in terms of the strength of the vortex sheet is

$$\boxed{\gamma(TE) = 0}$$

— vorticity at the T.E

This is explicitly imposed in Thin airfoil Theory.