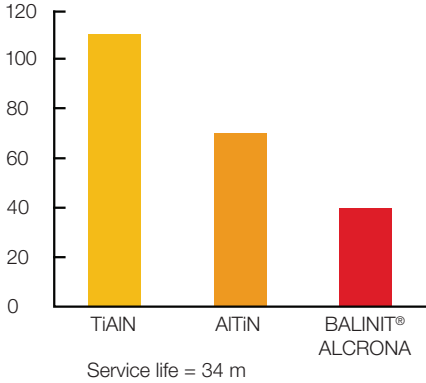


BALINIT® ALCRONA establishes a new benchmark in milling

Roughing

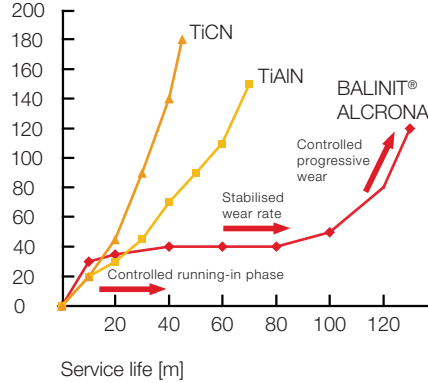
Width of flank wear land VB [μm]



Tool: Carbide end mill, D = 10 mm
 Workpiece: Steel 52 HRC
 Machining mode: Dry
 Source: Oerlikon Balzers Coating cutting laboratory

Finishing

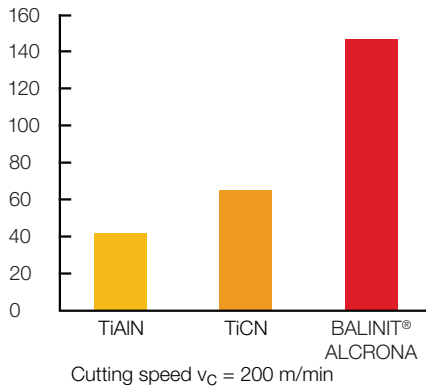
Width of flank wear land VB [μm]



Tool: Carbide end mill, D = 8 mm
 Workpiece: Steel DIN 1.1191 (~AISI 1045)
 Cutting speed: $v_c = 400$ m/min
 Cooled
 Source: Oerlikon Balzers Coating cutting laboratory

Finishing

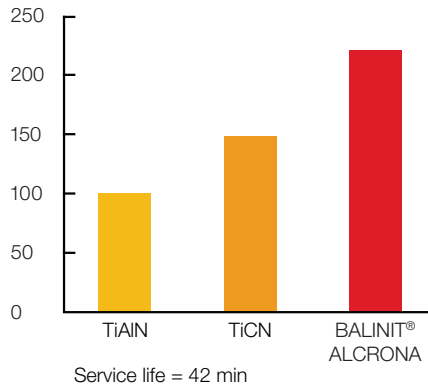
Tool life [min]



Tool: Carbide end mill, D = 8 mm
 Workpiece: Steel DIN 1.1191 (~AISI 1045)
 Cutting parameters: $f_t = 0.1$ mm
 $a_e = 0.5$ mm
 $a_p = 10$ mm
 Climb milling
 Emulsion 5%
 $VB_{max} = 0.12$ mm
 Source: Oerlikon Balzers Coating cutting laboratory

Finishing

Productivity [%]



Tool: Carbide end mill, D = 8 mm
 Workpiece: Steel DIN 1.1191 (~AISI 1045)
 Cutting parameters: $f_t = 0.1$ mm
 $a_e = 0.5$ mm
 $a_p = 10$ mm
 Climb milling
 Emulsion 5%
 $VB_{max} = 0.12$ mm
 Source: Oerlikon Balzers Coating cutting laboratory