

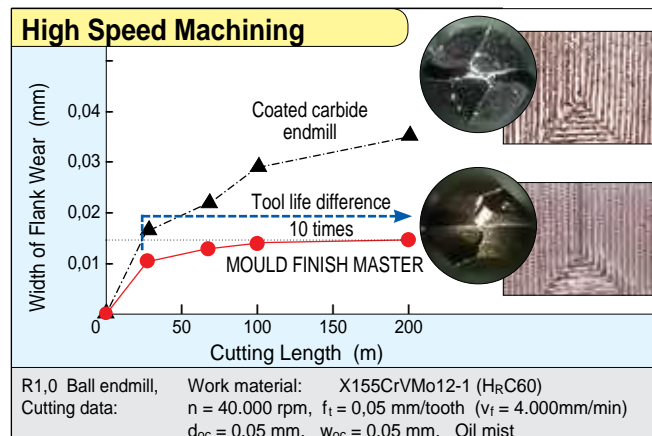
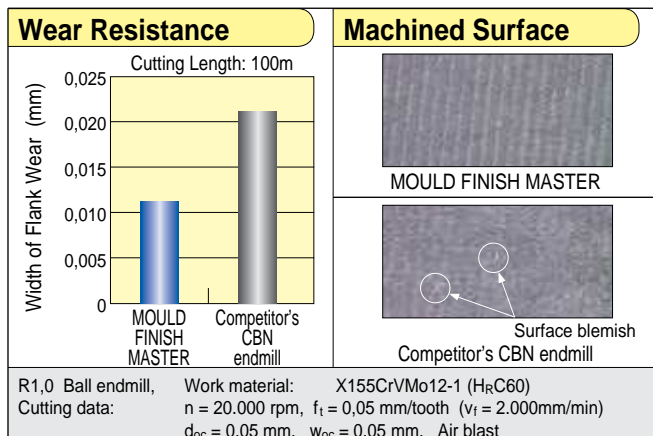
## ■ Characteristics / Application

- High precision machining of hardened steels < HRC70 with long tool life
- Super tough grade SUMIBORON BN350 prevents chipping of the cutting edge
- R accuracy :  $\pm 0,005\text{mm}$

## ■ Endmills

	Cat. No.	Stock	Dimensions (mm)						
		BN350	R	$\phi D$	L	$\phi d_1$	$\phi d$	$\ell_1$	$\ell_2$
4,0 mm (Shank Diam.)	BNBP 2 R020-012 4	●	0,2	0,4	50	0,37	4	0,3	1,2
	BNBP 2 R030-015 4	●	0,3	0,6	50	0,57	4	0,4	1,5
	BNBP 2 R050-025 4	●	0,5	1,0	50	0,97	4	0,6	2,5
	BNBP 2 R075-040 4	●	0,75	1,5	50	1,47	4	0,9	4,0
	BNBP 2 R100-055 4	●	1,0	2,0	50	1,97	4	1,4	5,5
6,0 mm (Shank Diam.)	BNBP 2 R020-012 6	●	0,2	0,4	50	0,37	6	0,3	1,2
	BNBP 2 R030-015 6	●	0,3	0,6	50	0,57	6	0,4	1,5
	BNBP 2 R050-025 6	●	0,5	1,0	50	0,97	6	0,6	2,5
	BNBP 2 R075-040 6	●	0,75	1,5	50	1,47	6	0,9	4,0
	BNBP 2 R100-055 6	●	1,0	2,0	50	1,97	6	1,4	5,5

## ■ Performance



- Excellent surface finish compared with competitor's CBN and coated carbide endmills

## ■ Recommended Cutting Conditions

Spindle revolutions:  $n$  (rpm), Feed rate per tooth:  $f_t$  (mm/tooth), Depth of cut:  $d_{oc}$  (mm), Wide of cut:  $w_{oc}$  (mm)

Material Cutting data	Pre-hardened steel, Die steel (~ HRC52)				Die steel (~ HRC62)				High speed tool steel (~ HRC70)			
	$n$ (rpm)	$f_t$ (mm/tooth)	$d_{oc}$ (mm)	$w_{oc}$ (mm)	$n$ (rpm)	$f_t$ (mm/tooth)	$d_{oc}$ (mm)	$w_{oc}$ (mm)	$n$ (rpm)	$f_t$ (mm/tooth)	$d_{oc}$ (mm)	$w_{oc}$ (mm)
R 0,2	20.000 - 50.000	0,02	0,03	0,03	20.000 - 50.000	0,02	0,01	0,02	20.000 - 50.000	0,015	0,01	0,02
R 0,3	20.000 - 50.000	0,02	0,03	0,03	20.000 - 50.000	0,02	0,01	0,02	20.000 - 50.000	0,015	0,01	0,02
R 0,5	20.000 - 50.000	0,03	0,05	0,05	20.000 - 50.000	0,03	0,03	0,04	20.000 - 50.000	0,02	0,02	0,03
R 0,75	20.000 - 50.000	0,04	0,08	0,1	20.000 - 50.000	0,04	0,05	0,05	20.000 - 50.000	0,03	0,02	0,05
R 1,0	20.000 - 50.000	0,05	0,1	0,1	17.000 - 50.000	0,05	0,05	0,05	17.000 - 50.000	0,03	0,03	0,05

## ■ Important Notes

- (1) For stable machining, a more rigid machine is recommended.
- (2) Air blast or oil mist coolant is recommended.
- (3) Shorten overhang as much as possible.

