

/

1.

，
.
.
.

32~40m/s(115~144km/h) .

.
.
가
.



(bearing surface) . ,

, .

(centering) . (anti-balloon ring)

가 (yarn guide) .

40mm , 20,000rpm , 0.003

2.09m/s(7.5km/h) (2).

.

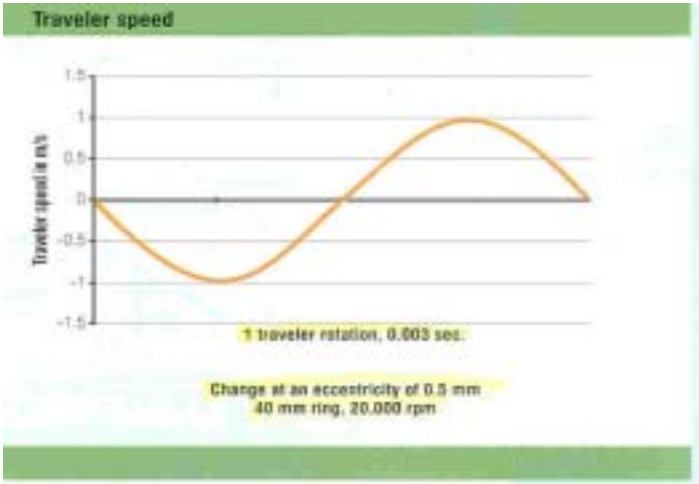
.

- 1(3.2mm) : Ne16
- 2(4.0mm) : Ne24
- Orbit oblique : Ne30~80
- (anti-wedge,) 가 ; 가

1N98

,

.



< 2>

가

0.002mm (3).

,

.

,

,

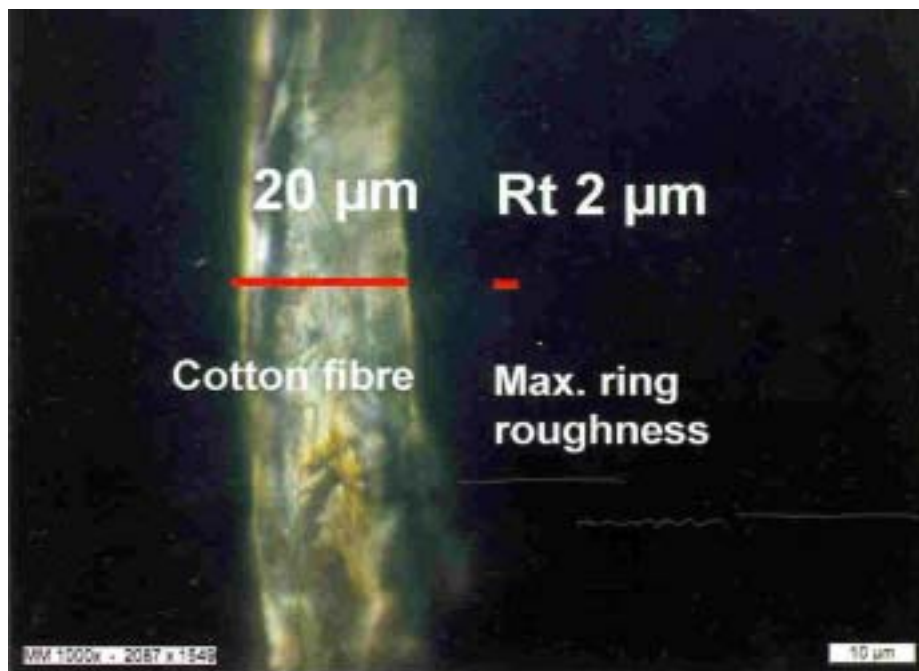
(microwelding).

.

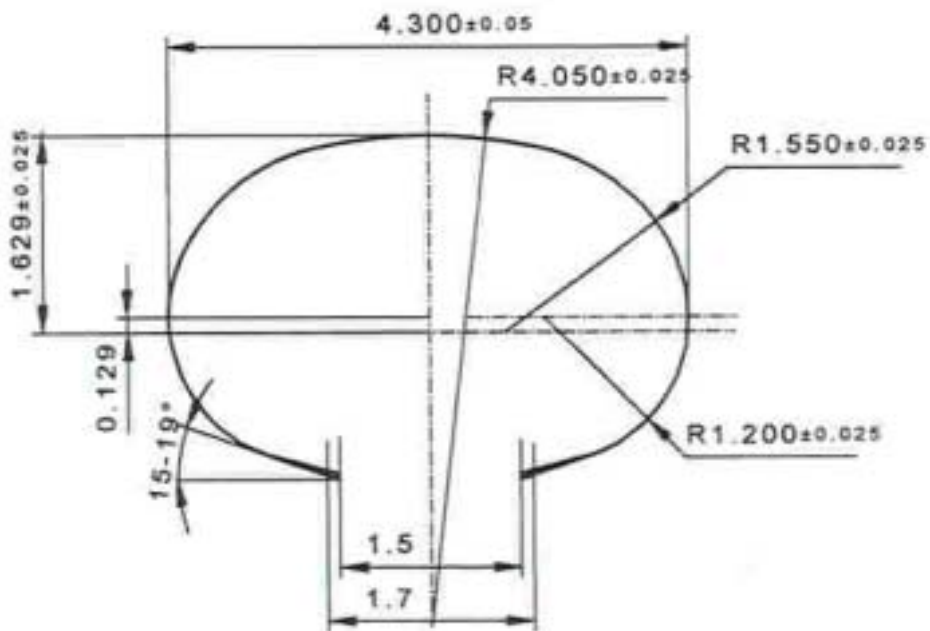
,

가 . 가 Bräcker Titan

.



< 3>



< 4>

,

가 Titan

4.

0.05mm (4).
±3% , ISO 31.5(6/0)
0.000945g 가
,
,
가
가
“Saphir” 가
(batch) 2 .

5.

7~21 22,000~60,000km
2~6 5
Ne30 5 (1,000kg)가

6. 가

가 (, sloughing) ,
 , 가
 .

7.

.
 ,
 .
 .
 가 , 가 .
 , , .
 .

8.

.
 가 . 가 가
 0.15% .
 가 .

9.

Bracker Titan .
(Zirkon)

(Pyrit)가 . 1,000

.

10.

가 .

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