

6.

(1)

(intact rock)

(2)

(3)

①

54 mm NX

(D)

가 2.5 3.0

10

②

가

0.02 mm

0.001 radian(

3.5min)

50 mm

0.05 mm

③

가 0.3 mm

④ Capping material

30 가

⑤

가

5 10

가

(

0.5 1.0 MPa/ sec)

가

(P)

Newton(kN, MN)

1%

⑥

5

⑦

가

$$\sigma_c = \frac{P}{A}$$

P

A

(4)

(numerical analysis)

(analytic solution)

(RMR, Q-system, RSR)

(5)

①

②

(, , , sampling ,)

③

④

⑤

(RMR)

6.

Deere & Miller (1966)		ISRM (1979)			
term	strength (MPa)	term	strength (MPa)	term	strength (kg/cm ²)
very high	> 200	extremely strong	> 250		> 1600
high	100 - 200	very strong	100 - 250		1300 - 1600
medium	50 - 100	strong	50 - 100		1000 - 1300
low	25 - 50	medium strong	25 - 50		700 - 1000
very low	< 25	weak	5 - 25		300 - 700
		very weak	1 - 5		
		extremely weak	0.25 - 1		