

8.

(1)

가 index . index
가 . 가
가 .

(2)

, , ,

① 가

Model PLT-10 가 45 kN (10,000lbs) 가
, 가 (platen) 60° 5 mm .
가 ±0.2 mm

②

Load cell, gauge, ram transducer ,
± 5 % .

③

transducer .

(3)

① Diametral test

13 (a) 가 index
. 가 1.0 . 가
. 10

② Axial test

13 (b)

가 indexd

(D)가

(W) 0.3

1

10

③ Block or irregular lump test

13 (c), (d)

가

50 ± 35 mm wjd

D/W

0.3

1.0

1.0

가

가

가

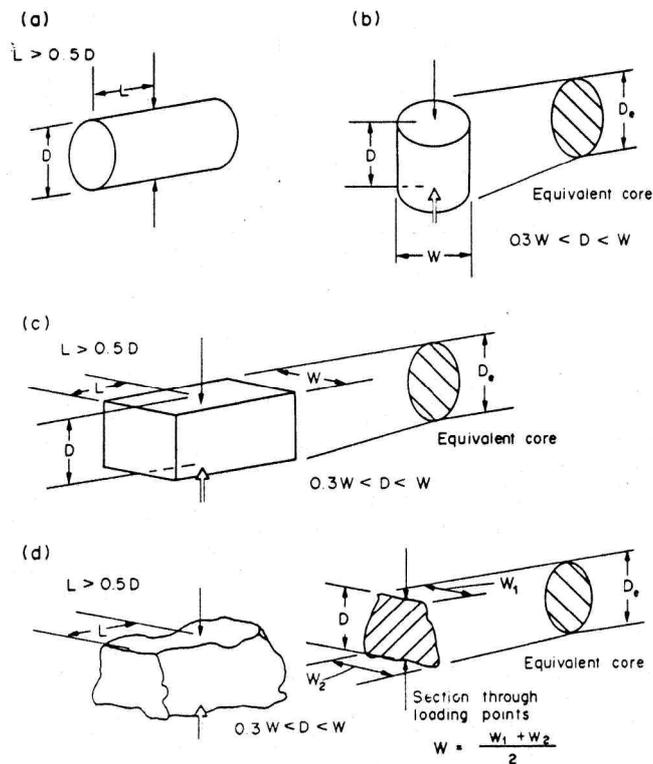
가

(D),

(W),

(P)

(W)가



13.

(a) diametral test,

(b) axial test, (c) block test, (d) irregular lump test

(4)

①

②

③

④

가

⑤

(5) Strength index $I_s(50)$

①

I_s

(D),

(W),

(P)

strength index

$$I_s = \frac{P}{D_e^2}$$

D_e^2

diametral test

D^2

, axial

block

lump test

4A/

A

W × D

가

② ①

index D

D가 50 mm

index $I_s(50)$

, F correction factor

$$I_s(50) = F \times I_s$$

$$F = \left(\frac{D_e}{50}\right)^{0.45} \approx \left(\frac{D_e}{50}\right)^{0.5}$$

③ 10

$I_s(50)$

$I_s(50)$

④ $I_s(50)$

20 25

가

$I_s(50)$

(q_u)

$$q_u = 24 \cdot I_s(50)$$

(6)

①

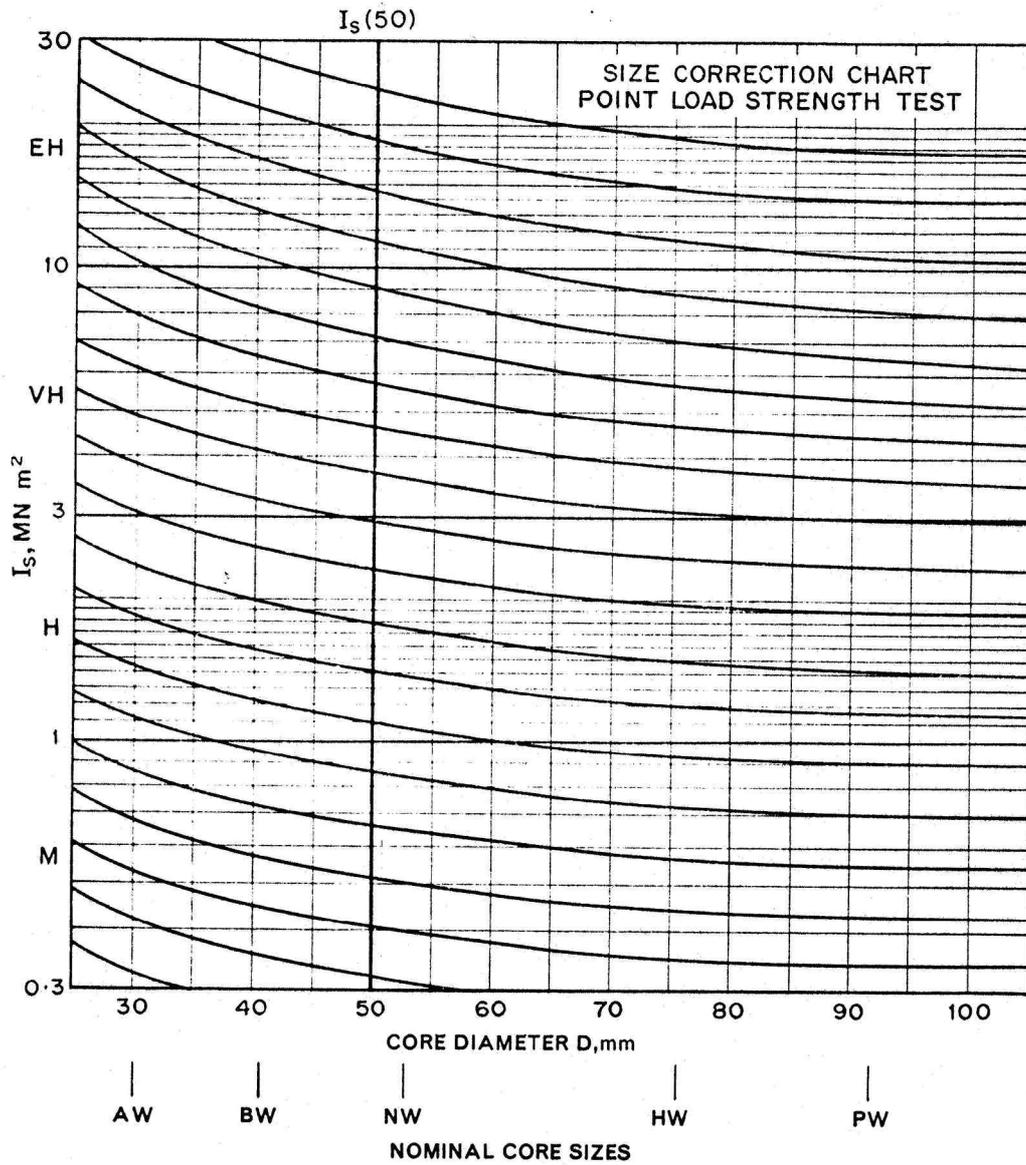
②

③ P, D, W, D_e, I, I_s(50)

④ I_s(50)

⑤

⑥ I_s(50)



7.

(Franklin, 1972)

| | (MPa) | (MPa) |
|------|----------|---------|
| (EH) | > 10 | > 160 |
| (VH) | 3 10 | 50 100 |
| (H) | 1 3 | 15 60 |
| (M) | 0.3 1 | 5 16 |
| (L) | 0.1 0.3 | 1.6 5 |
| (VL) | 0.03 0.1 | 0.5 1.6 |
| (EL) | < 0.03 | < 0.5 |



15.