SUPPORT CHARTS FOR DISCONTINUOUS (BLOCKY) GROUND AND FOR CONTINUOUS GROUND

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RMi rock support chart for blocky ground and weakness zones also for initial support in overstressed, particulate ground

For weak zones with thickness Tz < Dt, Sr = (D/Db) x K2
even, Sr = (D/Db) x K2

For blocky and particulate ground

Sr = (D/Db) x K2

K1 = SL x C x GW
(SL = stress level, C = factor for roof vs. wall,
GW = groundwater influence)

K2 = Co / Nj
(Co = factor for orientation of joint set or weakness zone,
Nj = number of joint sets)

DT = diameter of tunnel (span or wall height)
Db = diameter of representative rock block
Tz = thickness (width) of weakness zones
K1 and K2 are adjustment factors

RMI SUPPORT CHART FOR CONTINUOUS, GROUND

Note: use it with care, as there might be uncertainties in stress measurement or in stress calculations, and the fact that the chart for squeezing is based on a limited amount of cases.

For all particulate materials: Use support chart for blocky (discontinuous) ground for initial support estimate

REINFORCED SHOTCRETE (thickness mm)
200 → 150 → 120 → 100 → 80 → 60

FOR MASSIVE ROCKS: No or random rock support
FOR PARTICULATE ROCKS: Use support chart for blocky ground

MASSIVE, DUCTILE, and PARTICULATE ROCKS

Massive, Ductile, and PARTICULATE ROCKS

FIBRECRETE (thickness, mm)
200 → 150 → 120 → 90 → 70 → 50

SCALING
NO or RANDOM ROCK SUPPORT

MASSIVE, BRITTLE ROCKS

Competency factor  Cg = RMi / σs

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