Indian Standard

QUANTITATIVE CLASSIFICATION SYSTEMS OF ROCK MASS – GUIDELINES

PART 1 ROCK MASS RATING (RMR) FOR PREDICTING ENGINEERING PROPERTIES

1 SCOPE

This standard (Part 1) covers the procedure for determining the class of rock mass based on geomechanics classification system which is also called the Rock Mass Rating (RMR) system. The classification can be used for estimating the unsupported span, the stand-up time or bridge action period and the support pressures of an underground opening, It can also be used for selecting a method of excavation and permanent support system. Further, cohesion, angle of internal friction and elastic modulus of the rock mass can be estimated. In its modified form RMR can also be used for predicting the ground conditions for tunnelling.

It is emphasized that recommended correlations should be used for feasibility studies and preliminary designs only. *In-situ* tests are essential for final design of important structures.

2 REFERENCES

The Indian Standards given in Annex A contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision. and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standard indicated.

ANNEX A

***(Clause* 2)**

LIST OF REFERRED INDIAN STANDARDS

IS No.	*Title*
8164: 1978	Method of determination of point load strength index of rocks
9143 : 1979	Method for the determination of unconfined compressive strength of rock materials
9221 : 1979	Method for the determination of modulus of elasticity and Poisson's ratio of rock materials in uniaxial compression
11315	Method for the quantitative description of discontinuities in rock mass:
(Part 1) : 1981	Orientation

(Part 2) : 1987	Spacing
(Part 3) : 1987	Persistence
(Part 8) : 1987	Seepage
(Part 11): 1987	Core recovery and rock quality
12070: 1987	Code of practice for design and construction of shallow foundation on rock
13365 (Part 2) : 1992	Quantitative classification systems of rock mass- Guidelines: Part 2 Rock mass quality for prediction of support pressure in underground openings