ABSTRAK

Abstrak-Daerah Bayat merupakan tempat dimana salah satu dari tiga tempat singkapan batuan tertua di Jawa yang berumur Pra-Tersier dan Paleogen. Kondisi geologi dan umur yang relatif tua daerah Bayat banyak tersingkap batuan metamorf yang khas. Batuan tersebut mencakup batuan diantaranya marmer, sekis, filit, serpentinit, kuarsit yang berumur Pra-Tersier, batuan lanau, batupasir, batugamping, dan batuan beku diantaranya intrusi gabro, basalt, dan mikro diorit. Batuan metamorf foliasi memiliki keberagaman mineralogi, karakteristik petrografi, dan sifat teknik. Hasil dari 3 Jenis sekis yaitu sekis mika, sekis hijau, dan sekis grafit, menunjukan bahwa kekuatan mekanik sampel umumnya merupakan hasil dari berbagai parameter, seperti sudut foliasi, jenis mineral, ukuran mineral, dan derajat pelapukan. Mineral dominan yang menyusus ketiga jenis sekis ini merupakan mineral mika, klorit, kuarsa, k-feldspar, dan aktinolit. Uji kuat tekan batuan memakai metode *Point load indeks test* dengan hasil kuat tekan batuan sekis hijau sebesar 10,34 Mpa, sekis mika sebesar 4,66 Mpa, sekis grafit 6,74Mpa. Analisis korelasi regresi linier digunakan untuk menentukan besaran koefesien korelasi antara parameter mineral dengan kuat tekan sehingga mengetahui seberapa besar hubungan diantara keduanya dan menghasilkan kepastian korelasi.
Kata Kunci: Bayat, Kuat Tekan, Regresi Linier

Abstract- *Bayat area is a place where one of the three oldest rock outcrops in Java is Pre-Tertiary and Paleogene age. Due to its geological conditions and relatively old age, the Bayat area is exposed to many distinctive metamorphic rocks. These rocks include rocks including marble, schist, phyllite, serpentinite, quartzite of Pre-Tertiary age, silt rock, sandstone, limestone, and igneous rocks including gabbro intrusions, basalt, and micro diorite. Foliated metamorphic rocks have a diversity of mineralogical, petrographic characteristics, and engineering properties. The results from 3 types of schist, namely mica schist, green schist, and graphite schist, show that the mechanical strength of the samples is generally the result of various parameters, such as foliation angle, mineral type, mineral size, and degree of weathering. The dominant minerals that comprise these three types of schist are mica, chlorite, quartz, k-feldspar and actinolite. The compressive strength test of the rock used the Point load index test method with the results of the compressive strength of green schist rock being 10.34 Mpa, mica schist being 4.66 Mpa, and graphite schist being 6.74. Linear regression correlation analysis is used to determine the magnitude of the correlation coefficient between mineral parameters and compressive strength so as to know how big the relationship between the two is and produce certainty of the correlation.*
Keyword*: Bayat, Regresi Linier, Rock Strength,*