Geological-Petroleum Engineering Bulletin), 2, 47-51, Zagreb. (in Croatian, with Abstract in English)

Tomašić, I., Ženko, T. and Aljinović, S. (1992): Resistance of dolomite aggregates to freezing and abrasive impact strain.- Rudarsko-geološko-naftni zbornik (Mining-Geological-Petroleum Engineering Bulletin), 4, 119-126, Zagreb. (in Croatian, with Abstract in English)

Tomašić, I., Fistrić, M. and Vrkljan, M. (1997): Estimation of Resistance of Stone Aggregates to Recrushing.- Rudarsko-geološko-naftni zbornik (Mining-Geological-Petroleum Engineering Bulletin), 9, 41-47, Zagreb.

Tomašić, I., Lukić, D., Peček, N. and Kršinić, A. (2011): Dynamics of capillary water absorption in natural stone.- Bulletin of Engineering Geology and Environment, 70, 673-680.

Tucker, M.E. (1990): Dolomites and dolomitization models. In: Tucker, M.E. and Wright, V.P. (1990): Carbonate Sedimentology. Blackwell Sci. Publ., 365-400, Oxford.

Tucker, M.E. (2001): Sedimentary petrology: An Introduction to the Origin of Sedimentary Rocks. Blackwell Science Ltd, 262pp, Oxford.

Velić, I. and Sokač, B. (1982): New discoveries of the Lower and Middle Triassic in the western part of Kordun area (central Croatia).- Geološki vjesnik, 35, 47-57, Zagreb. (in Croatian, with Abstract in English)

Zenger, D.H., Dunham, J.B. and Ethington, R.L. (eds.) (1980): Concepts and Models of Dolomitization. SEPM Special Publication, 28, 320pp, Tulsa.

Zhang, L. (2005): Engineering Properties of Rocks, Vol. 4 (1st ed.). Elsevier Publ., 208pp, Amsterdam.

Testing methods:

HRN EN 1936: Natural stone test methods - Determination of real density, apparent density, and total and open porosity, Croatian Standards Institute, pp 9.

HRN EN 13755: Natural stone test methods - Determination of water absorption at atmospheric pressure, Croatian Standards Institute, pp 7.

ISRM (1985): Suggested method for determining point load strength. Int. Journal of Rock Mechanics and Mining Sciences and Geomechanical Abstracts. 22, pp. 51-60.

## SAŽETAK

### Povezanost fizičko-mehaničkih svojstava dolomita sa sedimentnim i dijagenetskim značajkama – gornjotrijaski dolomiti Medvednice i Samoborskoga gorja, SZ Hrvatska

U radu su opisane sedimentno-dijagenetske značajke nekoliko gornjotrijaskih dolomita i povezane su s njihovim fizičko-mehaničkim svojstvima (prostorna masa, upijanje vode, otvorena poroznost i indeks čvrstoće mjeren opterećenjem u točki, PLT). Uzorci su uzeti iz triju kamenoloma: Ivanec i Dolje na Medvednici te Gradna u Samoborskome gorju. Uzorci iz kamenoloma Ivanec determinirani su kao kasnodijagenetski, ranodijagenetski i „prijelazni" dolomiti. Uzorci iz kamenoloma Dolje determinirani su kao ranodijagenetski i kasnodijagenetski, a uzorci iz kamenoloma Gradna kao kasnodijagenetski dolomiti. Najkvalitetnijim uzorcima za primjenu kao tehničko-građevni kamen odnosno agregat pokazali su se kasnodijagenetski dolomiti iz kamenoloma Dolje. Zbog svojih sedimentno-dijagenetskih značajki uzorci iz Dolja imaju najniže vrijednosti otvorene poroznosti i upijanja vode te ujedno visoke vrijednosti prostorne mase i PLT-a.

**Ključne riječi:**
dolomit, fizičko-mehanička svojstva, dijageneza, agregati, trijas, Hrvatska

## Authors Contribution

All authors have equally contributed to research work and writing of the paper. **Ana Maričić** (Assistant Professor) is credited for the research hypothesis and development of the research as a mentor for MS thesis. She did the review of the literature and the interpretation of the physical-mechanical properties. **Karlo Starčević** (Master of Geology) researched this topic for his MS thesis and he made the testing of physical-mechanical properties as well the major part of micropetrographical analysis. He also produced all graphical presentations for the paper. **Uroš Barudžija** (Assistant Professor) contributed to the micropetrographical analysis and interpretation of the results. He mainly contributed to the discussion on the influence of sedimentary and diagenetic features.