عنوان فارسی مقاله:
تأثیر نوع و حداکثر اندازه سنگدانه بر برخی خواص بتن پرمقاومت از جنس سیمان پوزولانی از جهت شاخص‌های حجمی جزء چسبندگی و کربن دی اکسید

 عنوان انگلیسی مقاله:
Influence of type and maximum aggregate size on some properties of high-strength concrete made of pozzolana cement in respect of binder and carbon dioxide intensity indexes

توجه!
این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک کنید.
4. Conclusions

Based on research carried out, the following conclusions were reached:

- Pozzolana cement CEM IV/B-V 32.5R with a simultaneous use of highly effective superplasticiser and microsilica made it possible to obtain high strength concretes, made both of mineral natural (gravel) aggregates as well as from crushed (granite and basalt). In areas of research conducted, resultant concretes showed self-compacting properties, which places them in a group of “green” composites, fulfilling the principle of sustainable development.

- Increase of the cement content from 600 to 700 kg/m³ resulted in the growth of concrete strength (at least by 8.5%) only when 0/8 mm aggregates were used. For 0/16 mm aggregates, practically no statistically significant difference was noted, for both levels of amount of cement used.

- Taking strength as the only criterion for HSC concrete quality assessment for our studies the use of 700 kg/m³ cement proved to be more favourable in case of 0/8 mm aggregates. However, when basalt aggregate was used to produce concrete, 0/16 mm aggregates appeared more effective for this cement content.

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