MIXTURE PROPORTIONING WITH INTERNAL CURING

Starting with the cement content in the graph on the upper right, find the chemical shrinkage of the mixture (a good default value is 0.07). Proceed to the value on the y-axis and starting with this same value in the graph on the upper left, find the line for the mixture’s w/c ratio. (Note that there is a single (thick) line for all w/c ratios greater than or equal to 0.36 as for these w/c ratio values, it is assumed that complete hydration of the cement powder can be achieved.) Proceed to the value on the x-axis and starting with this same value in the graph on the lower left, find the line for the absorption (dry mass of aggregate basis) of the lightweight aggregate. Finally, proceed to the value on the y-axis to obtain the recommended level of lightweight aggregate (dry mass basis) to be added to the concrete mixture. This replacement should then be conducted on a volumetric basis, replacing an equal volume of normal weight aggregates with pre-wetted (SSD) lightweight aggregates.