



Useful Calculations

- Admixtures

Useful Calculations – Admixtures

Admixtures are used to improve or change the properties of wet/plastic and hardened concrete.

Admixtures are dosed as a percentage of the cement content in the concrete mix. Some change the reaction of the cement with the water (hydration process). Some work independently of the cement, with the aggregates (air entrainers). All admixtures have recommended addition rates to be used as a guideline. You must always test their performance with your cement and aggregate before use.

Admixture	Description	Dosage
<i>Superplasticiser XWR</i>	Makes water wetter by separating cement particles. Increases workability of concrete without losing strength.	750-3000ml per 100kg cement
<i>AP3000 Plasticiser</i>	Retarder, set time increases in cold weather and decreases in hot weather.	300-1000ml per 100kg cement
<i>Armset Accelerator</i>	Sets mix faster, aids concreting in cold weather, speeds up production, increases strength and reduces breakages, allows early handling of products	500-2500ml(4000ml max.) per 100kg cement
<i>Armair (air entraining agent)</i>	Gives freeze/thaw protection, improves workability, reduces bleed water, reduces the risk of plastic shrinkage cracks and plastic settlement, all external paving should be air entrained to protect against freezing and de-icing salts	400-800ml per 100kg cement
<i>Pigments</i>	Liquid or powders added to concrete to improve aesthetics of finished product	Dose varies depending on aggregates, cement w/c ratio, admixtures and finish shade required.
<i>Armfoam (foaming agent)</i>	Produces a light weight foamed concrete weak enough to dig out easily	1000ml per m ³

Please note: all dosages are approximate and based on Armcon Admixtures..