

SUPERPLASTICIZERS

HIGH RANGE WATER REDUCER

High Range Water Reducer (HRWR), also known as Superplasticizer, is an admixture that allows concrete to be poured at higher slumps and increased workability without the addition of water. When adding HRWR to concrete, standard slumps of 60 mm to 100 mm can be increased from 150 mm to 250 mm depending on the workability required.

Benefits of High Range Water Reducer:

- Less water in the mix reduces the overall water/cement ratio, resulting in accelerated early strength development and faster turnover of forms
- Reduces finishing labor costs due to ease of workability and optimized set times
- Maintains water/cement ratio while increasing flowability and workability
- Minimizes the need for concrete re-tempering and slump adjustments at the jobsite which ultimately leads to more durable concrete
- Fewer rejected loads thanks to the admixture being added at the plant instead of on-site

Recommended uses of High Range Water Reducer:

- Concrete with varying water reduction requirements
- Concrete where control of workability and setting time is critical (especially for higher strength concrete of 35 MPa and above)
- Concrete where high flowability is required (ie. formwork congested with reinforcing steel)
- Concrete where increased stability, high-early strengths and improved durability are needed
- Concrete where shrinkage cracking is a concern



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MID-RANGE WATER REDUCER

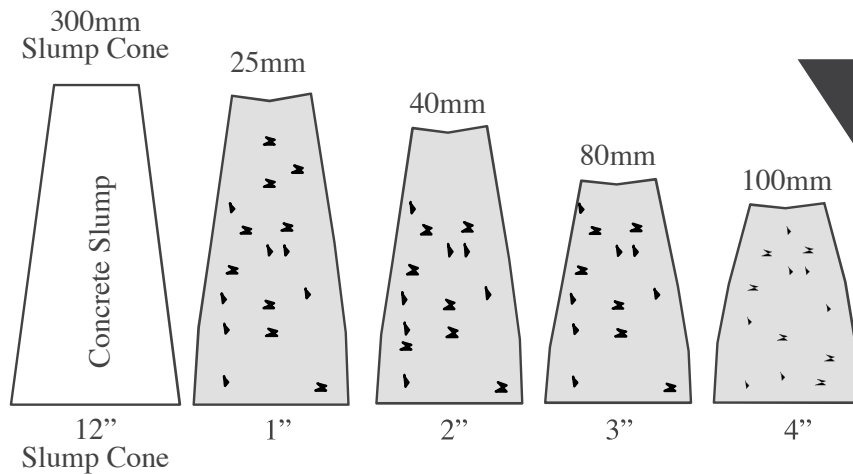
Mid-Range Water Reducers are used for making more uniform and predictable quality concrete. When adding MRWR to concrete, standard slumps of 60 mm to 100 mm can be increased from 100 mm to 150 mm depending on the workability required.

Benefits of Mid-Range Water Reducer

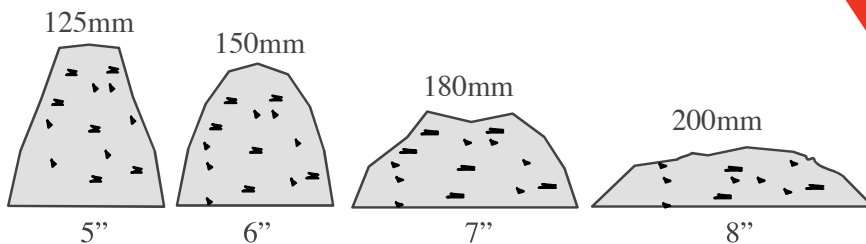
- Maintains similar setting times as regular concrete
- Reduced water content required for a given workability
- Improved workability
- Reduced segregation
- Increased compressive and flexural strengths
- Improved finishing characteristics for flatwork and cast surfaces

Recommended uses:

- Prestressed concrete
- Precast concrete
- Reinforced concrete
- Shotcrete
- Lightweight concrete
- Pumped concrete
- Insulated concrete forms (ICF)



STANDARD MIXES



MRWR AND HRWR MIXES