



Dura-Mix® SP

Heidelberg Materials has revolutionized exterior residential concrete with Dura-Mix® Slump Plus.

Dura-Mix® SP is built around the same specifications as standard DURA-MIX®, but with enhanced characteristics and excellent durability for our extreme climate and resistance to freeze/thaw cycles.



Performance characteristics

Durability

- 5-8% air entrainment for excellent freeze thaw/protection
- Minimum 300 kg of GU cement
- 0.45 maximum water/cement ratio

Placement

- Ease of placement due to increased slump range (160 mm ± 30 mm)
- Increased productivity

Finishing

- Reduced bleed water
- Reduced set times due to maintained water-to-cement ratio (no added water to reduce hydration efficiency)

Economy

- Less labour required due to easier placement
- Reduced warranty issues
- Reduced shrinkage and cracking as a result of no extra water being added

Construction techniques to follow:

Site preparation

- All topsoil and vegetation removed to below grade
- Uniformly packed granular base (10-25 mm aggregate)
- Dampened base material prior to concrete placement (no standing water, mud or snow)
- Forms constructed with minimum thickness (50 mm material) and well oiled with form release
- Stakes used at maximum 1 m intervals for bracing
- Reinforcing steel is recommended but not required (Note: reinforcing steel does not prevent cracking)

Placing & finishing

- Under no circumstances is water to be added to take the concrete above the specified slump range of 160 mm \pm 30 mm
- Water can be added by the delivery driver only to maintain the slump range
- Discharge concrete as close as possible to where it is to be placed
- Do not use a tined garden rake; use a concrete-specific rake (concrete placer) or a square pointed shovel
- Screed (strike-off) with a straight edge to final elevation
- Form construction joints to a minimum of 1/4 of the thickness of the slab (e.g., a 100-mm thick driveway should have joints a minimum of 25 mm deep)
- Steel concrete tools are not to be used to form joints, edges or for troweling the surface
- Allow any and all bleed water to evaporate prior to finishing—do not sprinkle extra cement powder on the surface to soak up excess bleed water
- Do not spray water on surface to aid in finishing
- Float surface prior to texturing and jointing
- Texture to leave a non-slip surface (broom, burlap, foat finish, etc.)

Curing for strength & durability

- Minimum air temperature of 5°C for at least 72 hours following placement, or provide external heat to a maximum of 25°C (if heating externally, protect from heat-loss shock when removing heat)
- Protect from rapid moisture loss (evaporation retarders, poly, tarps, etc.) if hot or windy conditions exist

Dura-Mix® SP is designed to the highest standards and with the highest-quality materials. As there is no replacement for good construction practices, CSA code must be followed for all pours.