

COLD WEATHER WORKING - GENERAL GUIDANCE – CEMENTITIOUS PRODUCTS:

During periods of cold weather, the following guidelines apply to all applicators of Parex Technical Mortars cementitious products. These should not be taken as an exhaustive list and normal Engineering judgement must be made in each application.

All applicators should note that in line with most other chemical reactions, these products will exhibit extended pot life and possible changes in workability and strength development at temperatures below 10° C.

The following notes should help in their effective use:

- **Temperature:** In general, all Parex Technical Mortars cementitious products should not be used below 5° C and placed at 5° C and rising however, if the following precautions are taken, then it should be possible to use the products at 2° C and rising. All data shown on our normal technical literature is at standardised temperature of 20° C and naturally variations away from this at lower temperatures must be allowed for.
- **Storage:** The products should be stored away from extremes of cold and/or moisture from condensation. Suitable storage such as a heated container should be used. If the products become chilled for any reason, beware that it may take a considerable period of time to warm them due to their naturally high specific heat capacity.
- **Mixing:** All equipment, plant and water should be frost free. For example, run water for a period of time to allow to clear ice and cold water from hose lines. Beware of standing time when stored in bowsers and tanks. For best results, use warm water above 10° C, but below 40° C.

All mixing should be as thorough as possible. All mixing should be carried out as near to the point of placing as possible to reduce any cooling period prior to placing. Ensure that each mix is fully discharged to avoid any build up of hydrating material that may adversely affect the subsequent batch.

DO NOT add extra water over that recommended, nor re-tamper the mixes. Further information can be obtained from the Parex Technical Mortars Sales or Technical Departments.

- **Transport:** Ensure that any conveyancing of freshly mixed product is as short in time and distance as possible. Also, equipment should be frost free, for example: Bagging lines for pumped or sprayed products should be kept “live” by continuous movement of the product and not left to chill.
- **Placing:** All preparation of substrates must be completed in advance of mixing. Substrates should be pre-soaked prior to application with frost free warm water and blown out. Correctly applied scrub or bond coats must not be allowed to dry before placing material on top. Be aware that substrates can be excessively cold and this may affect the products, particularly at the bond line.

Where practical, best results are gained in harsh conditions by the use of site protection such as tenting with heaters.

- **Curing:** In line with good concrete practice, which should be exercised at all times, all Parex Technical Mortars cementitious products should be moist cured. In most applications, we recommend the use of Parex Technical Mortars Polycure sprayed membrane system. These curing aids must not be allowed to chill the surface of the products.

In line with Winter Concreting practice and particularly in applications of thin section size, the products should be thermally cured using either expanded foam matting or thick plywood boards. Both of these should be secured in place to prevent wind tunnel effects.