



STANDARD FOR MORTAR SKIP/TUB TWINTONE FORKLIFTABLE UNITS

NO: T.E.L. - 601 - Rev 1-05

1.0 SCOPE:

This standard specifies the requirements for thermoplastic mortar skips for use in the construction industry for the discharge and use of Trowel Ready Mortar (TRM) and Silo Mix mortars. This standard applies to skips that are open and not subject to any over pressure and having a capacity in excess of 200 litres.

The purpose of the standard is to define the material used, requirements, tests, type tests and production quality control tests.

Companies manufacturing to the standard must be to I.S. EN 9001: 2000 certified or equivalent.

2. NORMATIVE REFERENCE

This Standard incorporates by dated or undated reference from other publications. These 'normative' references subsequent amendments to, or revisions of, any of these publications apply to this standard only when incorporated in it by amendment or revision. For undated reference the latest edition of the publication referred to applies.

ISO	1133 - 1981	Plastics Determination of the Melt Flow Rate of Thermoplastics
ISO	1183	Plastics: Method of determining density
ISO	R527	Determination of Tensile Properties
ISO	175	Plastics: Determination of the effects of liquid chemicals, including water
ISO	1872 - 1986	Plastics: Test specimen preparation
EN	45020	General terms and their definition concerning standardization and related activities

3. DEFINITION

Mortar skip; A container that retains its design shape for the purpose of carrying mortar when empty without any external support.

4. DESIGN REQUIREMENTS

4.1 *Lifting:* The mortar skip should be suitable for lifting by means of a Forklift or Teleporter when used with appropriate equipment and in accordance with manufacturers instructions. The tub shall be so designed to incorporate three base support legs to facilitate the safe lifting by Forklift or Teleporter. These legs shall prevent the tub from sliding sideways when lifted.



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4.2 *Supports:* The mortar skip should be supported about its top rim by means of a structural plastic rim to give added lateral stability to the unit. This rim should not allow for the accumulation of stagnant mortar.

4.3 The mortar skip should be suitable for lifting and travelling about a construction site by means of a Forklift or Teleporter.

4.4 The skip should be of such a design so as to allow for the easy extraction of mortar. It should also be suitable for the use with plastic liner bags. If the surface becomes punctured in any way it should not be possible for leaked mortar to be retained in the unit. The internal surface should be of a material grade that will facilitate the easy removal of mortar.

5. MATERIAL PROPERTIES:

5.1 *Density - (Raw materials)*

The use of regrind shall not be permitted.

Determined in accordance with ISO 1183 method A or D. A single resin polymer shall have a density not less than 920kg/m³ and not greater than 940kg/m³.

5.2 *Melt Flow Rate - (Raw materials)*

The Melt Flow Rate is measured in accordance with ISO 1133 Section 4, must be a maximum of 5g/10min and a minimum 2g/10min. Test to be carried out on raw material.

5.3 *Weather Resistance*

The material used in the manufacture of the body shall be ultra violet light stabilized.

6. MORTAR SKIP

6.1 *Capacity and Tolerance*

a. When tested the ambient temperature shall be 15°C ± 5°C. The skip shall be filled to overflow (brimful) with water, wait ten minutes fill to overflow, and measure the capacity to an accuracy of ± 1%.

b. The stated capacity shall be the measured capacity +/- 5% stated in liters.



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6.2 *Visual inspection*

On visual inspection of the skip there should be no bubbles, blisters, or other defects that could cause a hole or fracture or inhibit the efficient removal of mortar.

6.3. *Weight*

The body of the skip should not be less than 17kgs. Tolerance in these weights shall be +20%, -10%.

6.4 *Wall thickness*

The minimum wall thickness on any point of the sides or base shall not be less than 4mm. A margin of 10% is permitted.

6.5 *Load capacity*

The load capacity of the skip is the capacity as defined in 6.1, multiplied by a factor of 2.0 to give the certified load capacity of the skip in kg.

6.5.1 *Testing of Mortar skips shall be as follows:*

The skip complete shall be subject to a series of lift tests as follows:

- (a) Loaded with weight which equates to its certified load capacity + 100%, well distributed.
- (b) The temperature at test shall be 20°C +/- 5°C.
- (c) The skip shall be lifted underneath the base between the legs by approved devices i.e. Forklift or Teleporter.
- (d) 200 lifts shall be completed in batches of 25 over a four-hour period.
- (e) The skip when fully loaded shall be held in the elevated position for a period of 4 hours to ensure that there is no creep in the plastic body.
- (f) Travel test by Fork lift/Teleporter shall be carried out by: -
Placing the fully loaded tub as defined in (a) on the forks of the teleporter or fork lift and traveling over a series of 25mm x 50mm timber lathes on hard ground 500mm apart for 1 kilometer distance.
- (g) Result:
 - (i) No failure of skip, or any part shall occur.
 - (ii) The skip when emptied shall return to its original shape within 3 hours and be suitable for re-use



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7.0 Test frequency

- (i) Weight: The weight of the skip as defined in 6.3 shall be tested every 3 months from samples randomly picked from production.
- (ii) Capacity: As defined in 6.1 is a type of test that is completed prior to certification, once off and certified by a National Weights & Measures Authority as a type test.
- (iii) Visual inspection: Every skip
- (iv) Wall thickness: Once every 3 months.
- (v) Load capacity is a type test and shall be completed prior to certification, once off ref. 6.5. and thereafter test 6.5.1. (a) (as a once off load test held for 1 min.) every 6 months certified by independent body

8.0 MARKINGS:

The following information should be moulded into each skip:

Capacity
Year of Manufacture
Standard mark no.
Load capacity
Name of manufacturer.
Max Weight when empty.

9.0 PRINTING;

Each unit to have a unique Serial Number Hot Foil Stamped into the plastic with a minimum height of 20mm (unless otherwise requested by the customer.)
Each unit to have the capacity to top rim clearly printed on in a distinguishable colour

10.0 SAFETY

Each tub/skip shall carry a distinguishable print stating “Do Not Crane Lift “



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11.0 PRODUCTION AND QUALITY CONTROL

The tests described in section 6.5 of this standard should be carried out at the frequency indicated above during production, quality control, and records maintained within a quality system. This system should be audited and certified by a Certified External Authority in accordance with CEN regulator EN 45020. The testing must be carried out on an ongoing basis by an independent test house who must give ongoing certification to the product. Once off test certification is not acceptable.

11.0 HANDLING AND USE

The manufacturer should supply instructions for the handling and use of the Mortar Skip.

12.0 RISK ASSESSMENT

The manufacturer shall provide the customer with full risk assessment procedure upon request.