



## SHORT FORM APPLICATION GUIDE ISOLATEK® Type CP-2

*This is an abbreviated guide and is not intended as a substitute for the Long Form ISOLATEK Type CP-2 Application & Installation Manual. Applicator shall completely and fully read and understand the Long Form Application & Installation Manual prior to applying this product.*

**PUMP REQUIREMENTS:**

Rotor Stator type, open throat, screw feed pump with minimum “No. 4” soft rubber stators must be used.

**MIXER REQUIREMENTS:**

Paddle or ribbon-type mortar mixer with safety cover and provision for quick dumping of mix directly into the pump hopper. Mixers capable of operating speeds of 35 to 40 RPM, are required.

**WATER REQUIREMENTS:**

One bag of product requires 21 to 25 Litres (5.5 to 6.5 US Gallons) of potable water per bag. **A calibrated water meter is required** to ensure constant water volume per mix. *Note: The “five gallon bucket” method is unacceptable.*

**MIX TIME:**

Product is mixed by first adding potable water to the mixer and then product. Mix for three (3) minutes to achieve the target mixer slurry density. **In a multiple bag mix, the mix time begins after the last bag has been added to the mixer. Do not mix more material than can be used in 15 minutes.**

**HOSE SET-UP:**

High pressure plaster type hose. Typical diameters (ID) and lengths are listed below.

<u>Total Hose Length</u>	<u>Diameter (ID)</u>	<u>Length</u>
23 m (75 feet)	38 mm (1-1/2 in)	@ 8 m (25 ft)
	32 mm (1-1/4 in)	@ 8 m (25 ft)
	25 mm (1 in)	@ 8 m (25 ft)

Flexible hose length shall not exceed 23 m (75 ft). Hose couplings shall be screw-on type connect/disconnect that do not restrict product flow. Steel tapered reducers must be used when a reduction in hose is necessary. Brass or aluminum couplings or reducers must not be used.

**NOZZLE REQUIREMENTS:**

The spray nozzle assembly must be a min. of 25 mm (1 in.) I.D. Nozzle orifice shall be nominal 10 to 13 mm (0.4 to 0.5 in.) I.D.

**NOZZLE DISTANCE:**

The distance between the nozzle and substrate will vary according to the type of equipment and nozzle used but must be between 305 mm (12 in.) and 457 mm (18 in.).

**NOZZLE AIR PRESSURE:**

Use the amount of air at the nozzle that results in an even thickness build, texture and proper density. Excessive air will decrease yield. Optimal air pressure is minimum 2.1 kg/cm<sup>2</sup> (30 psi) as measured at the nozzle.

**THICKNESS PER PASS:**

Apply 10 mm (3/8 in.) to 13 mm (1/2 in.) on the first pass, 19 mm (3/4 in.) to 25 mm (1 in.) on subsequent passes.

**APPLICATION TEMPERATURE:**

Air and Substrate temperatures must be 2°C (36°F) and rising. Do not apply if substrate or air is 4°C (40°F) and falling. Maximum air and substrate temperatures must be 45°C (113°F).

**SURFACE PREPARATION:**

Ensure surfaces are clean and free of dirt, oil, grease, loose mill scale, paints/primers (other than those approved by Isolatek) and any other materials that may impair adhesion. Paints/primers will require additional surface preparation prior to application. Unprimed steel and concrete would normally be suitable for direct application. Contact Isolatek Technical Services Department or refer to ***ISOLATEK Type CP-2 Long Form Application & Installation Manual*** for requirements.

**SET-TIME:**

ISOLATEK Type CP-2 sets in approximately 1 to 2 hours. **Do not re-temper the material.**

**VENTILATION:**

Provide a minimum of 4 complete air exchanges per hour until the material is dry.

**CALCULATING MIXER DENSITIES:**

1. Weigh an empty 1036cc ISOLATEK cup and tare the scale to account for the cup weight.
2. Fill the cup with material from the pump hopper. Then gently tap the cup on a hard surface to eliminate all air pockets.
3. Level the material with top of cup.
4. Weigh the filled cup in grams.
5. Compare weight in grams to the mixer density in chart below.

**SAFETY PRECAUTIONS:**

**ISOLATEK Type CP-2 is slippery when mixed with water. Do not allow wet material to remain on scaffolds, ladder rungs or floors. Walking on wet material may result in slips or falls.** Signage must be posted in areas where the spray application of ISOLATEK Type CP-2 is ongoing to warn other trades of slip hazards.

**ESTIMATING ISOLATEK TYPE CP-2 MIXER DENSITY FROM WET CUP WEIGHTS**

WET CUP WEIGHT (Grams)		MIXER DENSITY Using 23 L (6 US Gals) Water	
		PCF	(kg/m <sup>3</sup> )
580		35	(561)
614	OPTIMUM RANGE	37	(593)
648		39	(625)
682		41	(657)
716		43	(689)
750		45	(721)

Cup Size = 1036cc

**CALCULATING NOZZLE DENSITIES:**

1. Weigh an empty 1036cc ISOLATEK cup and tare the scale to account for the cup weight.
2. Spray the material directly into the cup. Then tap the cup on a hard surface to eliminate all air pockets.
3. Level the material with the top of the cup.
4. Weigh the filled cup in grams.
5. Compare weight in grams to the nozzle density in chart below.
6. To increase nozzle cup weight, increase atomizing air at the nozzle until target density is achieved.

NOZZLE CUP WEIGHT (Grams)	THEORETICAL DRY DENSITY Using 23 L (6 US Gals) Water	
	PCF	(kg/m <sup>3</sup> )
850	20	(320)
895	21	(376)
940	22	(352)
985	23	(368)
1030	24	(384)
1075	25	(400)

Note: If you are having difficulty achieving these nozzle cup weights, please contact the Isolatek International Technical Service Department for assistance.  
\* Nozzle weights are based on a cup with a volume of 1036cc.

**NOTE:** Only the listed equipment, nozzles and procedures are approved for applying ISOLATEK Type CP-2. Deviations from these requirements will result in product not meeting claims as published in the literature. **For additional information, please contact the Technical Service Department.**



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