

### What You Build, We'll finish for you

### Introduction

Spray-applied plasters are becoming a sine qua non for modern buildings, having become the main form of plastering systems, given the economy, speed of completion and superior finish.

StarPlast<sup>™</sup> range makes Trimix one of the leading manufacturers of applied plasters in Middle East. As the application requires no artisan or skilled labour, the costs of application is one of the lowest for all surface renderings.

StarPlast<sup>™</sup> can be rendered on varied surfaces – concrete walls, aerated light-weight concrete blocks, cement mortar, fair-face concrete blocks, polystyrene ceilings and soffits, precast panels, ALC block walls, dry-wall partition. With excellent adhesion StarPlast<sup>™</sup> obviates need for rush coats and chipping or hacking of even the most irregular surfaces. In cost-benefit analysis which includes time overruns saved, StarPlast<sup>™</sup> triumphs all traditional surface coating system.

Pre-mixed and with in-process quality control, including from the receipt of ingredients, provides for consistently superior quality.

## StarPlast Products is simplicity enough as compared to competing products. Its superiority over other similar products is due to:

Better spreadability | No flaking | Great adhesion | Ease of use | Double-quick drying time |Vapour release properties

The StarPlast system comprises the following components:

- StarPlast™ PrimaryCoat
- StarPlast™ CementitiousEnhancer
- Starplast ™CementitiousEnhancer Ultra
- StarPlast™ Fine FinishCoat
- StarPlast™ Aqua ResistCoat

**StarPlast™ PrimaryCoat** is premix compound with inert fillers and acrylic-based. The professionally-done formulation enables coating thickness of up to 10mm on interior surfaces.

StarPlast<sup>™</sup> CementitiousEnhancer is cement-based, enhancer to acrylic plasters, which when blended on a 1:1 proportion, generates hardness and water resistance for the exterior surface applications which can go up to 10-12 mm thickness.



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**StarPlast™ CementitiousEnhancer Ultra** is a spray-applied higher density plaster enhancer for surfaces requiring above 10 mm and up to 15 mm thickness.

Both the above are a compound formulation of cement with finely graded silica fillers, dolomite, aerating components, and polymerising agents.

**StarPlast™ Fine FinishCoat** is pre-mixed white compound which is also acrylic based, for giving superior finish of up to 3mm thickness for interiors. Its inherent quality dispenses with all, whether powder or paste-based, fillers such as putties, stuccos etc. The uniformity rendered is so good that even primer paints are not required after using StarPlast™ Fine FinishCoat, and the Top-coat paint can be limited to 1-2 coats as opposed 3-4 coats required in traditional finishes. Ceilings can even be left uncoated without detracting in any way from the aesthetics

**StarPlast™ Aqua ResistCoat** is washable variety of StarPlast™ Fine FinishCoat for wet /humid areas; this has increased water-impermeability which renders higher protection and prevents surface degradation from the dampness. This recommended for kitchens, washrooms, laundries etc.

### **Cost benefits**

The following make for extensive and tangible cost savings:

#### Faster application

Against traditional output of 150 sq. metres per day, StarPlast<sup>™</sup> can complete 600 sq. metres finished using a team of three; in case of thick applications it can help you complete 250-300 sq. metres of finished wall surfaces provided prepared surfaces and layout are ready.

#### Low load factor

As a thin-coat, feather-weight system StarPlast<sup>™</sup> brings down the material used weights—10mm thickness results only in an economical 18kg/sq. meter.

When compared with traditional plaster of 15mm thickness which weighs 33kg per sq. meter, the saving is over 45% in the load factor.

#### No curing

Curing of the surface is required only if StarPlast<sup>™</sup> CementitiousEnhancer is used; even then only for 2 days. This is against 7-day curing for traditional plaster. If CementitiousEnhancer is not used, no curing is required.

#### Superlative finish without cracks

StarPlast<sup>™</sup> plaster's practicability provides for easy application and levelling giving the surfaces superlative finish. What is more, the inherent quality provided by the polymer prevents/covers cracks effectively, which also makes it superior to traditional plasters and other surface treatments. This quality is further enhanced by the fillers used, as they are checked for particle size uniformity. This also means no rush coats are required to cover cracks. The method of application using pressurised spray machines ensures superior adhesion and a finish which, for instance in the ceilings, requires no top coats. And in other surfaces, no primer paints are required.



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### **Application Methodology**

#### Substrate Preparation – Walls & Ceilings

- Clean the surface and make it free of dust, oil, and curing compounds. Then remove nails, stickers, masking tape, cement overflow and drippings, wires, fixers, and any other extraneous matter.
- Surface defects should be repaired.
- Fix adequately fibre glass mesh (yellow or white) resistant to alkali and shear strain, and plaster stops, angle beads, studs, etc.
- Cover wirings etc., as necessary.
- If necessary, apply a coat of StarBind, especially if the application is on fair-faced concrete.

### **Material Preparation**

• Mix StarPlast™ CementitiousEnhancer 1 bag (25kg) with 4.5-5 litres of water (using a mechanical mixer).

• Add StarPlast™ PrimaryCoat (25kg) and mix homogenously.

**For ceilings**, only StarPlast<sup>™</sup> PrimaryCoat need to be used.

### Application

- Spray on the selected surface generally to a thickness of 8-10mm.
- · Uneven surfaces need to be extra-sprayed for levelling.
- Smooth using "T" angle aluminium profiles and 60cm scrappers.
- Light mist curing should be done 24 hours after application and repeated after another 24 hours.
- Apply 1-2 coats of StarPlast™ Fine FinishCoat over the StarPlast™ PrimaryCoat.
- Leave to cure for a day; then lightly sand the surface to prepare surface for paint.

For ceilings, depending on substrate and if interior, use only StarPlast™ PrimaryCoat.

- StarPlast™ PrimaryCoat to be spray-applied on the construction joints and uneven surfaces.
- Fibre glass mesh to be used, as required.
- After 12 hours for curing, apply 1-2 coats of StarPlast™ Fine FinishCoat, normal or washable, depending on the area.

Please consult your Trimix representative for further information on application techniques.





### Application equipment

Spray machine compressor

Following are the recommended specifications for the spray-machine:

Pump pressure	: 11.5-12 kg/cm <sup>2</sup>
Hopper capacity	: 100 kg
Throughput	: 7-15 litres minimum
Air supply	: 500 litres/min
Max working pressure	: 10 bar
Number of cylinders	: 2
Tank	: 18 litres

Traditional Plaster vs. Spray Plaster – How it stacks up

### **Cost Savings**

#### Non-Availability of Skilled Labour vs. Low Labour Requirements

For Traditional Plaster, skilled masons are required in large numbers for a short period of time. Labour supply in inelastic in GCC countries, this contributes to the higher costs due to hiring charges, visa and labour protection formalities.

With StarPlast System, labour requirement is cut by 75% for the same-size job as compared with Traditional Plastering method.

#### Slow Progress vs. High Speed Application

Traditional plastering is labour intensive with low coverage output per man day. Spray Plaster is done by machine and the coverage output per man day is increased by approx 300-400% depending on the system and areas.

#### Interference with Other Trades vs. Minimal Interference

Spray Plastering's low labour requirement and the high speed of work would mean that site disruptions and interference with other functions are minimized. Contract management becomes facile since plastering and painting can be awarded as one contract.

#### Site Mixing of Plaster vs. Premixed Products

Traditional plastering requires the mixing of sand, cement & water on-site. Apart from additional time, space and man-power requirements, the quality of the sand is never consistent and mixing ratio varies from batch to batch. Spray Plaster is a ready-mixed product ensuring consistent quality throughout the project. Each batch of Spray Plaster produced at the factory is quality checked.

### Transportation of Traditional Plaster vs. Easy Movement

Great bulks of plaster have to be mixed and transported at the site causing disruptions and inconvenience; but with the Spray Plaster System, the material is palletized and can be lifted directly from delivery truck to the site of application.

# STAR PLAST — Spray Applied Plaster —

#### Maintenance Problems vs. Reduced Maintenance

Traditional plaster always leads to maintenance issues such as cracking and plaster delamination caused by inconsistent sand and the presence of salt in the sand. These problems are eliminated with Spray Plaster both ingredients quality and product consistency are strictly controlled at the factory.

### Scabbling/Key Coating vs. No Key Coating

Traditional plaster requires a key coat to ensure proper bonding to substrates and with smooth concrete scabbling is required. Spray plaster requires neither key coating nor scabbling as it has built-in binders which ensure excellent adhesion to the substrate. Only when StarPlast PrimaryCoat and StarPlast CementitiousEnhancer blend is used over fair-faced concrete, a priming coat of StarBind is recommended.

### **High Quality Finish**

Due to the good workability of the plaster it is much easier to apply and level the material resulting to a higher quality finish.

### **Consistency of Plaster**

The product is factory-mixed homogenous material. All ingredients are controlled and subjected to quality control procedures ensuring consistency of product.

### **Reduced Cracking**

Spray Plaster is a polymer based plaster which gives the product an in-built elasticity not found in traditional plaster—this helps to reduce, if not eliminate, cracks. The plaster is based on fillers which are analysed periodically with strictly controlled particle size distribution curves. Thus there is no cracking caused by excessive dust and impurities in the sand.

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