

# NUMOLD

## CASE STUDY

Client: Transgulf Cement Products, Dubai UAE  
COMPANY LOGO In Polymer Concrete

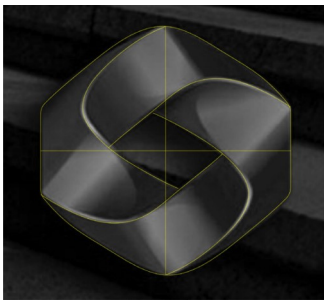
On our recent visit to the Big 5 Heavy Exhibition in Dubai. We were introduced by our long-standing friend Pete Bullock of Forest Press UK to Transgulf Cement Products. An invitation was made to visit their factory in Dubai to discuss a Precast Wall Cladding mould project. At the same time we were asked can we reproduce their company logo in concrete to their corporate colour - we accepted the challenge. As this was from a 2D image only – we had to create a 3D generated image and shown are the following steps to produce the master pattern, production mould and concrete logo.



Artwork provided from client

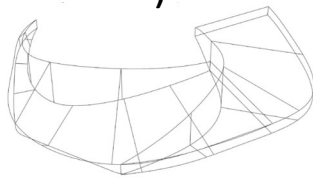
### 3D Generated Moulding Process

1)



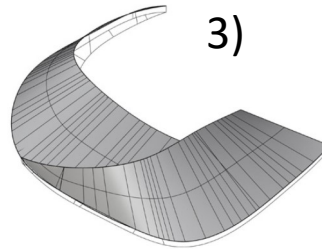
A Base shape of 2D curves was traced from image of the logo

2)



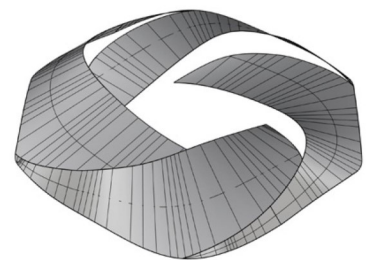
3D curves were generated from the 2D base shape

3)



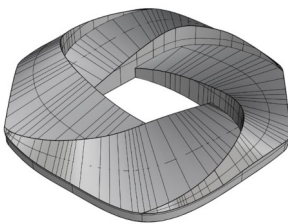
Surfaces were extruded from the network of curves

4)



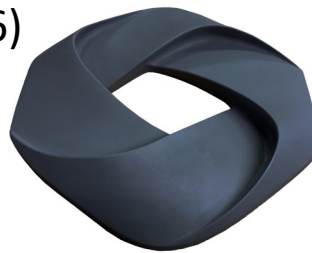
The surfaces were copied and rotated to create the full shape

5)



Vertical fillets were added and the base was capped to create a closed NURBS model. This model was then converted to a polygon mesh for use in our CNC software. The CNC software generated tool paths based off the 3D data and the final piece was machined from a block of model board.

6)



Finished CNC Master Pattern ready for moulding

7)



Silicone Mould— a soft elastomer silicone was chosen for relief of undercuts

### Specialist Casting Process

A polymer Concrete Mix was made using Marble Aggregates, White Cement, additives and pigments. After curing, the Logo was sealed with Impregnator and Wax – then buffed. The base was ground flat and a green felt baize was bonded to the bottom with a cut out for the Numold logo.

8)



To achieve the brief of the bright red colour, organic pigments were used over synthetic iron oxide pigments.

9)



Base of concrete with bonded green baize felt and Logo

10)



Project completed ready for packing and sending to Dubai