



**SCG 3D PRINTING
THE FUTURE OF
CONSTRUCTION**



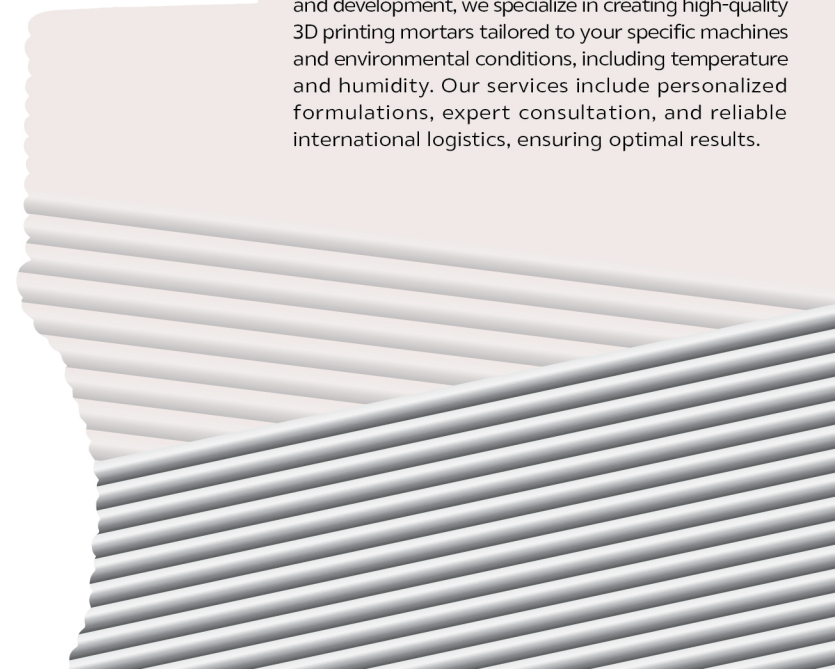
SCG 3D PRINTING

Leading Experts in 3D Printing Mortar

The Future of Construction 3D printing is revolutionizing the construction industry by offering a faster, more cost-effective, and environmentally friendly way to build. By layering precise amounts of mortar, this technology allows for complex and innovative structures with minimal waste and reduced labor—perfect for those pushing the boundaries of modern architecture and development.

WHO WE ARE?

With 10 years of expertise in material research and development, we specialize in creating high-quality 3D printing mortars tailored to your specific machines and environmental conditions, including temperature and humidity. Our services include personalized formulations, expert consultation, and reliable international logistics, ensuring optimal results.



KEY FEATURE



Expertise & Innovation: We specialize in advanced 3D printing mortars, tailored to meet the unique needs of each client. Our cutting-edge technology ensures high-quality results



Custom Solutions: Each formulation is tailored to specific printing machines and environmental factors, such as temperature and humidity, ensuring optimal compatibility and results



Eco-Friendly Formulations: Our sustainable mortars reduce carbon emissions and support eco-friendly building practices, driving the industry's shift toward greener solutions



Global Logistics: We offer reliable international logistics services, ensuring the timely and efficient delivery of your custom 3D printing materials to select countries



Technical Consultation: Our experts offer consultation on structural integrity, material selection, and optimal 3D printing techniques, guiding you through every stage of your project



High-Performance Materials: Our mortars are built to perform in diverse conditions, ensuring durability and long-term performance in construction project

KEY MATERIAL: SCG 3D PRINTING MORTAR

A high-performance, fiber-reinforced dry mortar designed for 3D cementitious printing — ideal for decorative elements, walls, facades, and structural applications. It offers exceptional speed, reliable performance, and distinct architectural expression

PRODUCT SPECIFICATIONS: **Our material has been tested in accordance with ASTM standards**

Property	Test standard	NN550	NN250	SCG LC3 (250)
Water/Dry Mortar (%)		12-14	14-16	14-16
Max Particle Size (mm)	ASTM C136	1.2	1.2	1.2
Density (kg/m ³)	ASTM C138	2,000-2,200	2,000-2,200	1,900-2,100
Setting Time (min)	ASTM C807	100-130	100-130	100-130
Compressive Strength (MPa)				
1 Day	ASTM C809	>30	>12	>10
7 Day		>60	>25	>25
28 Day		>80	>30	>30
Flexural Strength (MPa)	ASTM C348	>10	>7	>7
Drying Shrinkage (%)	ASTM C596	0.05	0.06	-0.06
Layer Time (Min)	-	>3	>3	>3
CO ₂ Emissions (kg/ton)	-	305	239	205

SCG 3D PRINTING MORTAR LC3 (250) | A Sustainable Leap Forward

The first commercial LC3 based 3D printing mortar

- Sustainable Composition: Up to 33% CO₂ reduction compared to NN550
- Terracotta Natural Hue: Derived from calcined clay, blends beautifully in modern and natural settings
- Robust Strength: Up to 30 MPa at 28 days
- Versatile Use: Perfect for decorative and structural components in both indoor and outdoor settings

SCG 3D printing mortar-LC3 is developed with Low Carbon Cement (LC3), replacing part of the clinker with calcined clay to significantly reduce CO₂ emissions while enhancing the mortar's appearance and performance characteristics



KEY BENEFITS



Exceptional Printability: Stable flow for smooth layers, Optimized for tropical climates



High Performance Versatility: Offers multiple strength grades for structural and non-structural use, from high-strength 80 MPa (NN550) to eco-friendly LC3-based formulations for sustainable builds



Beautiful by Design: Fine grain formulate for smooth, detailed finishes

PRINTING GUIDELINES

- Operate in ambient temperatures between 15-40°C
- Keep mortar temperature within 20-30°C for optimal performance
- Ensure continuous printing by coordinating mixing, pumping and extrusion
- Begin wet curing 25 minutes after printing to reduce moisture loss
- Clean hose and pump immediately after use to prevent clogging

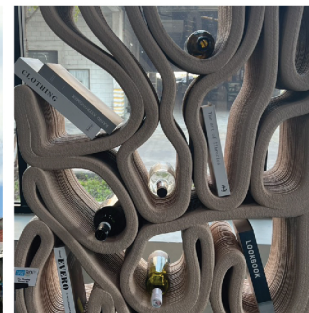
CUSTOM MORTAR DESIGNED FOR ALL CLIMATES ACROSS KEY REGIONS.

Engineered for consistent performance from below 20°C to above 35°C, tailored to local conditions and printers for reliable, high-quality results

APPLICATIONS

SCG 3D Printing is an ideal for a variety of construction applications, including :

Building wall / Aesthetic wall / Facade



Decoration / Furniture / Marine Object

Whether a small-scale residential project or a large-scale commercial development, SCG 3D Printing provide the durability and flexibility you need.

PROJECT USE CASES

Cafe Amazon



Ember Café & Wine

Medical Center

3D Printing Sculpture

3D Printing Column

WHY CHOOSE US?



Tailored Formulations: Custom-developed mortars to meet your specific machine and environmental requirements



Sustainable Solutions: Eco-friendly products that align with green building practices



Expertise You Can Trust: Over a decade of experience in material science and 3D printing technology



Reliable Delivery: Global logistics to ensure your materials arrive on time and in perfect condition



Consulting Services: Comprehensive technical support to help you select the best materials and techniques for your project

COMMITMENT TO QUALITY AND PERFORMANCE

SCG 3D PRINTING, quality is our top priority. Our materials undergo rigorous testing to meet the highest performance and durability standards, ensuring we deliver the best solutions to our clients, every time

CONTACT US

For more information or to request a consultation, please get in touch with our team:



Email: scginternational@scg.com



Website: **EN :** www.scginternational.com/th/construction-tech/3d-printing
TH : www.scgsmartliving.com/product/structure/scg-3d-printing



We create the future Layer by Layer