

Sand Texture Modular S-01 Introduction

S-01 sand texture modular is R&D by our own company, so it is brand new and innovative composite materials which is easy to operation and could be mastered quickly during production. It is different from traditional texture powder coating's production process and preparation design. Sand texture modular could replace texture additive, wax and parts of polyester resin in traditional texture powder coating formula, lower the production cost, cost could also be adjusted according to performance and property you want to get.

All the physical and chemical properties are improved, especially for film hardness could be improved to **3-8H**(pencil hardness).

• Environmental friendly and safety raw materials:

Special composite materials own the proprietary intellectual property rights, which are environmentally friendly, non-toxic and non-smell. The sample was tested by Guangzhou Weikai Testing Technology Co., Ltd. and fully complies with the limits of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers in the EU Directive 2011/65/EU.

Our product meets the limit requirements for 174 substances of high concern (SVHC) in the Chemical Registration, Authorization and Restriction (EC) No. 1907/2006. Please check the test report NO: RZRS2017-0344 and NO: WTS2017-15703 for your reference.

S-01 sand texture modular + user ingredients (resin + curing agent + pigment filler) can produce the texture powder coatings to meet customer's requirements. You can also choose other auxiliary materials, because S-01 texture modular has good compatibility.

Adjust the technical parameters of the extruder (recommend to configure the texture screws) or the pigment base ratio of the formula. The melting temperature of the material should not exceed 150 °C. The gloss ($\geq 2^\circ$ - 60° angle) can be controlled and adjusted to ensure the same gloss. The color is consistent, no obvious color difference.

•Texture size adjustment:

By adjusting the technical parameters of the mill (ACM) or changing the screen, it is possible to produce texture powder coatings with different particle sizes distribution.

Particle size D50 of standard texture powder coatings is 30-35 microns, manufactured by S-01 texture modular.

The texture is clear, uniform texture, three-dimensional, flat, firm, and the corners are well covered. The electric field (magnetic field) implements a more reasonable layout method, so that the product charge (corona charge and friction charge) is very stable. The powder rate is obviously increased, and the recycled powder can be sprayed to achieve better results.

Particle size D50 of super fine texture powder is 20-25 microns, manufactured by S-01 texture modular.

The texture is fine, moist, and feels good. It is also easily sprayed with fine powder, which does not affect the powder rate. The thickness of the work piece is not more than 100 microns on one side, and there is no powder falling, no crater, and no Faraday

The texture powder coatings manufactured by the S-01 texture modular, can also be used for friction powder. Do not need to add frictional electrification agent, nor the friction resin.

•Disadvantage of traditional texture powder coating:

1)Texture agent, matting agent and other additives are needed.

It need different kinds and different quantity of additives to adjust the texture size, gloss and harness. For example it need to add different quantity texture agent to get different size texture finish and different quantity of wax to improve hardness($\geq 2H$ pencil hardness).

2)It is difficult to get a uniform particle size, gloss, color and other technical parameters between batches because different kinds additives, other physical/ technical parameters and controlling machinery factors' are different in batches. It need be adjusted again and again in productions and even need to be reworked in the production.

Laboratory Spraying process :

Spray process	Voltage (KV)	Air pressure Kg/cm ²
Corona charge	40-65	0.09-0.12
Tribo charge	30-40	0.12-0.16

Sand Texture Modular S-01 Standard Formula

Item (TGIC system)	Recommended Quantity(kg)	Adjustment Quantity(kg)
Polyester resin/TGIC(93:7)	40	37-55
TGIC	3	2.8-4.2
matting、high gloss BASO4 (> 800 meshes)	37	46-16
Wollastonite (> 1000meshes)	3	0-12
Bentonite (gloss≥2°— 60°)	1	0-3
Flow agent (588)	0.6	0.6-1.2
S-01	15	10-25
Color(according to color atla)	Right amount	Right amount

Recycled powder formula	Ratio (%)
Plain powder gloss (20°-90°@60°)	80
S-01	20
Bentonite control Gloss (2°-20°@60°	0-3

**Primid and hybrid system could use texture modular too, pls change the binder ratio accordingly.

37+2.8+35+25 is the smallest ratio formula, we use the formula to make one bright green panel P216/RAL 250-3,it passed both artificial weathering aging test(test time was during 2017.6.21-2017.7.14) and neutral salt spray test(test time was during 2017.6.23-2017.7.14) which are made by China Coating Quality Supervision and Inspection Center .

For details, Please check the test reports(TW171363L2 and tw171363Y1).

With S-series texture modular, users could produce TGIC polyester resin, HAA polyester resin, hybrid polyester resin/epoxy resin texture powder coating easily.

Recycled powder coating with texture modular could be produced into texture powder coating as same property as new texture powder coating.

●Storage and packaging:

Storage under 30℃,avoid moisture, rain and sunlight, while far away from fire. The storage period is one year. After storage period, it needs to re-examine and sample test. It can continue to use if qualified.

25kg in PP bags or requirement by customer.