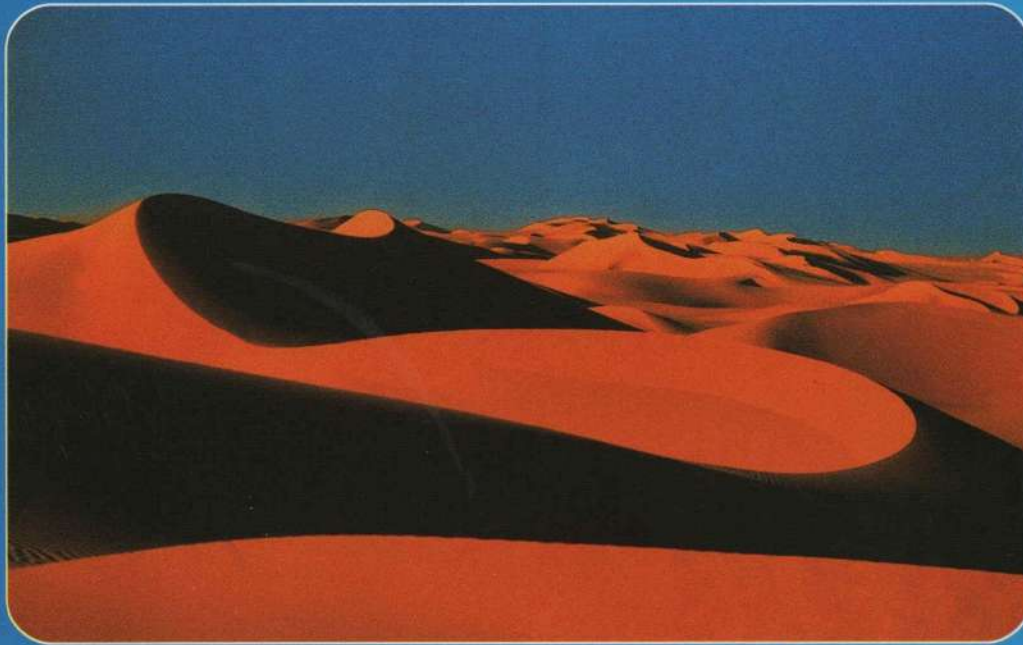




R. C. S. MANUFACTURING SDN. BHD.



s i l i c a s a n d

Quality, Service, Reliability = Our Assurance



Company profile...

R. C. S. Mfg Sdn Bhd is the pioneer in the manufacturing of resin coated sand in Malaysia. Incorporated in April 1991 as RCS Mfg, it began production in August of the same year. A year later, RCS Mfg changed its name to RCS Mfg Sdn Bhd.

RCS Mfg Sdn Bhd is extremely stringent in its selection of silica sand, understanding that every grain will affect the total quality control process. As a result, RCS Mfg Sdn Bhd applies a highly refined process in selecting the right silica sand which is further improved through a purification process.

State-of-the-art equipment imported from Japan- the Rotary Reclaimer- is used to enhance the shape of the sand, ensuring that customers obtain the highest quality of silica sand possible.

The success of RCS Mfg Sdn Bhd today is attributed to its philosophy of consistently manufacturing top quality products and offering first class service at a reasonable price to its customers.



R. C. S. MANUFACTURING SDN. BHD.

plant capacity

Plant Area	87120 sq ft
Factory Area	36300 sq ft
Storage capacity	1500 metric ton
Production capacity	1500 metric ton/month

production equipment

1	Sand storage
2	Rotary dryer - 2 units
3	Sand Screen Oscillating - 2 units
4	Rotary Reclaimer - 3 units
5	Mixer 100kg/batch - 3 units
6	Cooling conveyor
7	Packing machine

quality control equipment

1	Electric balance
2	Standard vibrating sieve - 2 units
3	Electric hot plate
4	1200°C oven
5	Melting point tester
6	Stick point tester
7	Transverse strength tester
8	Tensile strength tester
9	Permeability tester
10	Hydrometer

*Sand
improver
& separator.*



*Mixing
process.*



Manufacturing...

*Sand drying
& grain
size control
sieving.*



*Sand
cooling &
packing.*



RCS Mfg Sdn Bhd uses selected silica sand to produce high grade Resin coated sand by using Hot Mixing Method; Which contains 0.8% to 4% of Resin, with an AFS number ranging from AFS 40 to AFS 90. The bending strength of the product ranges from 12kg/cm² to 150kg/cm².

The benefits of using RCS Mfg Sdn Bhd resin coated sand are:

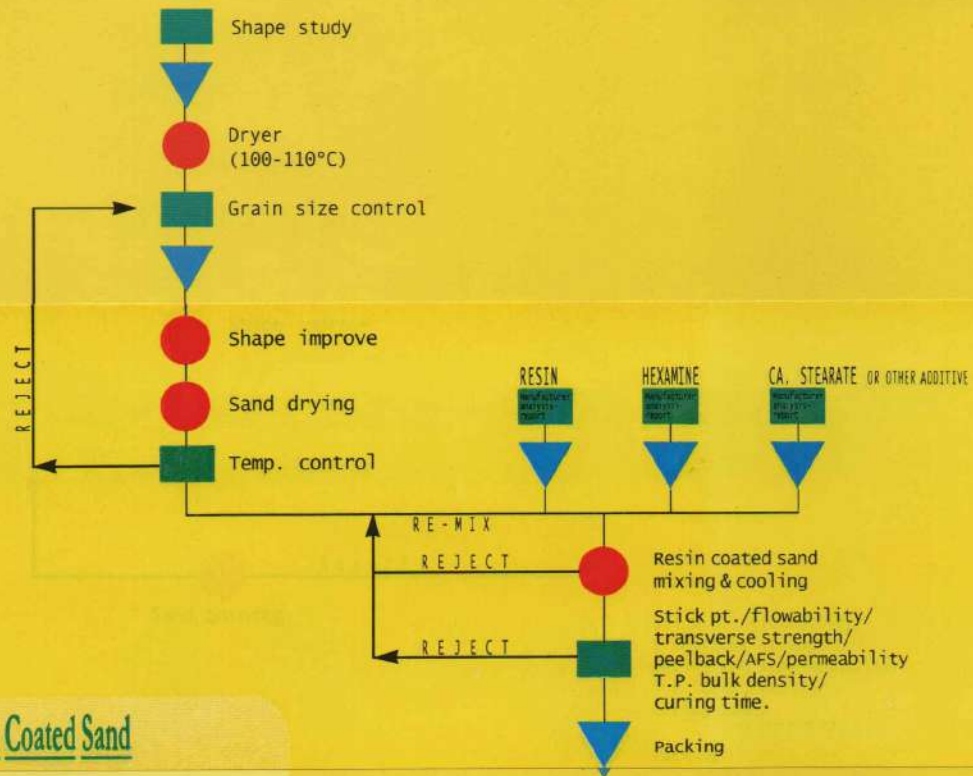
- 1) High compressive strength ensures the integration of the shell mould or core while pouring.
- 2) Shortened curing time of the shell mould or shell core, thus increasing productivity and decreasing production cost.
- 3) Allows adequate permeability resulting in less gas defects and overall improved quality of casting.
- 4) Grain size is strictly controlled to meet the requirements of all operations.
- 5) None-clumping for longer life span.



*Part of
lab equipment*



R. C. S. MANUFACTURING SDN. BHD. PRODUCTION FLOW CHART



Advantages of Resin Coated Sand

- 1) Low capital investment for moulding and closing equipment.
- 2) Small space requirements.
- 3) Simple process operation executable by non-skilled labour.
- 4) Good casting surface for quality finishing and definition.
- 5) Low sand/metal ratio.
- 6) Can be easily stored.



50MESH X25



70MESH X25



100MESH X25



140MESH X25

Grain Size Distribution

AFS NO.	0.85MM	0.60MM	0.425MM	0.30MM	0.212MM	0.15MM	0.106MM	0.075MM	0.053MM	Pan
	20#	25#	35#	50#	70#	100#	140#	200#	270#	Pan
34-39	0.6	13.0	38.0	35.0	12.30	1.0	0.1	-	-	-
40-45	0.4	7.6	23.0	36.0	22.40	10.2	0.40	-	-	-
48-54	0.1	3.0	9.50	36.50	34.0	11.0	5.50	0.40	-	-
56-62	-	0.50	7.0	18.50	34.0	32.0	7.50	0.50	-	-
63-70	-	0.20	3.80	13.50	35.0	31.50	12.8	2.60	0.60	-
76-90	-	-	0.1	4.0	23.0	38.0	25.0	9.1	0.70	0.2

SHELL CORE & CASTING



Application

Resin coated sand can produce the shell core and shell mould for the following parts:

- 1) *Automobile and motorcycle engine parts*
- 2) *Aluminium alloy casting*
- 3) *Grey iron casting*
- 4) *Brass and copper casting*
- 5) *Stainless steel casting*



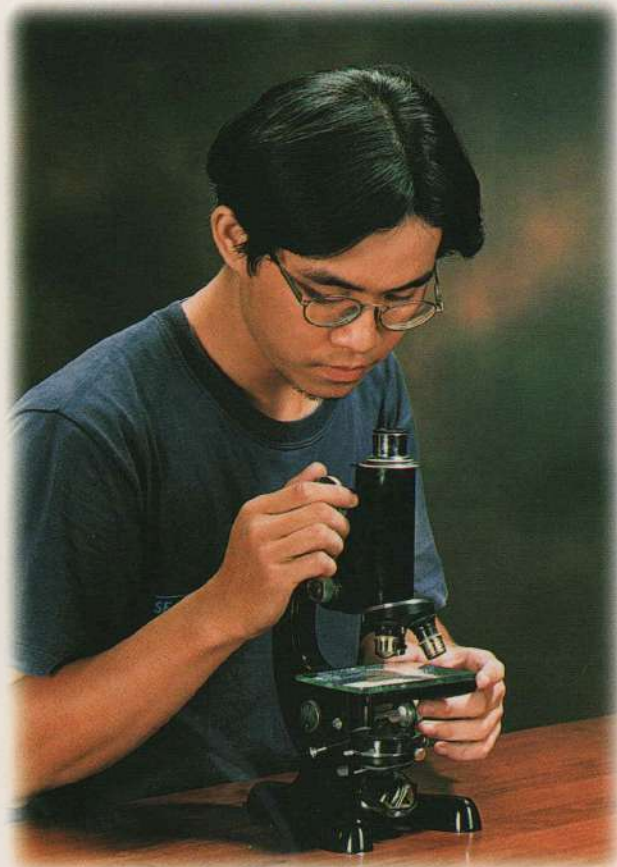
Ability of
Resin coated sand
to produce a
hollow shell core.



Advanced and stringent quality controls

MICROSCOPIC

examination



R. C. S. MANUFACTURING SDN. BHD.

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Photograph of shell core and casting courtesy of **Hicom Engineering Sdn. Bhd.**

Aluminium Alloy casting Sdn. Bhd.