

# PARUCOCERAM SI

# PARUCOCERAM RE

SiC impregnated with Si semiconductor heat-processing parts material  
SiC impregnated with Si ceramic industrial parts material

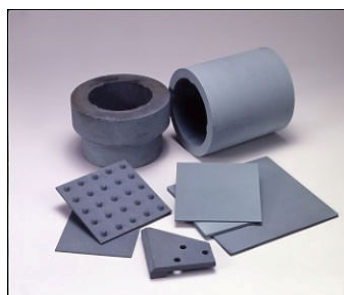
Recrystallized SiC ceramic industrial parts material

PARUCOCERAM are made with highly-purify silicon carbides, processed into products which are large-size (above 3 meters) and complicated shapes by our specific technology. And these are used for Ceramic industrial parts material. Quality of highest order is realized by consistent handling of production processes, from raw materials to finished products, with in our own factory.

## Applications



**PARUCOCERAM SI**



**PARUCOCERAM RE**

- Semiconductor heat-processing material
- Setter for sintering electrical parts
- Parts material producing liquid crystal
- Other Heat-resisting parts and corrosion-resisting parts material

## Impurity content (Pressure-Decomposition Method ICP-AES)

Metal Element [ppm]												
Fe	Ni	Na	K	Mg	Ca	Cr	Mn	Zn	Cu	Ti	V	Al
3	<2	<0.5	<1	<0.1	5	0.3	<0.1	<0.1	<0.1	<3	<3	25

## Physical Properties

Item		PARUCOCERAM SI	PARUCOCERAM RE
<b>Composition</b>		Si 18% , $\alpha$ -SiC 82%	$\alpha$ -SiC more than 99.9%
<b>Bulk Density</b>	[kg/m <sup>3</sup> ]	$3.02 \times 10^3$	$2.56 \times 10^3$
<b>Apparent Porosity</b>	[%]	0	18
<b>Allowable Temperature Limit</b>	[°C]	1350	1500
<b>Young's Modulus</b>	RT	370	200
	800°C	360	190
	1200°C	340	185
<b>Poisson's Ratio</b>	RT	0.18	0.21
<b>Flexural Strength (3 Pt)</b>	RT	250	140
	800°C	220	150
	1200°C	220	160
<b>Coefficient of Thermal Expansion</b>	RT ~ 700°C	$3.4 \times 10^{-6}$	$4.5 \times 10^{-6}$
	700°C ~ 1200°C	$4.3 \times 10^{-6}$	$5.3 \times 10^{-6}$
<b>Thermal conductivity</b>	RT	220	130
	700°C	60	40
<b>Specific Heat</b>	RT	0.70	0.69
	700°C	1.23	1.27



Pacific Rundum Co., Ltd. Fine Ceramics Department  
1 Iwase Akatamachi Toyama shi, Toyama 931-8555 Japan  
Tel: 076-438-1217 Fax: 076-438-1214 Mail: fc-dept@rundum.co.jp