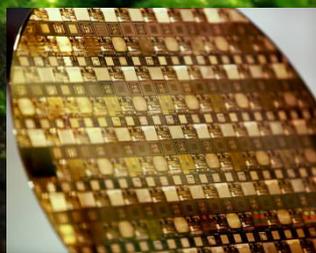




株式会社 **オーキークミカル**

Product Catalog





Rocky Insulator (Heat Insulation Board)

What is Rocky Insulator?

Rocky Insulator has phenolic resin and short glass fiber as materials which are uniformly die-molded under heat and pressure. Its excellent heat resistance and toughness have received good reputations from customers.



The product is used for the thermal insulation boards of rubber and tire production equipment.

Feature 1

Low thermal conductivity

- Reduces steam consumption
- Energy conservation (CO₂ reduction)

Feature 2

High compressive strength

Withstands high temperature and high pressure, leading to extended life.

Feature 3

Low water absorption rate

Prevents steam from entering and reduces internal damage.

Rocky Insulator - Physical Properties Table

Test Item		Unit	RC-53
			Green
Apparent density		g/cc	0.75
Mold shrinkage ratio		%	0.40
Relative density		—	1.50
Rockwell hardness M		—	115
Flexural strength		Mpa	145
Charpy impact strength		KJ/m ²	4.5
Tensile strength		Mpa	80
Compressive strength		Mpa	240
Voltage resistance		KV/mm	11
Insulation resistance	Ordinary state		6×10 ¹⁰
	After boiling		6×10 ⁹
Water absorption rate		%	0.05
Heat resistance		°C	210
Thermal conductivity		W/m·k	0.35

Rocky Insulator - Processing example



For large diameter platen insulation



Humidity dependence of Compressive strength

型式 Model	Compressive strength (Unit)	Atmosphere humidity	
		50℃	210℃
RC-53	Mpa	262	63

For thermal protection of hydraulic cylinder

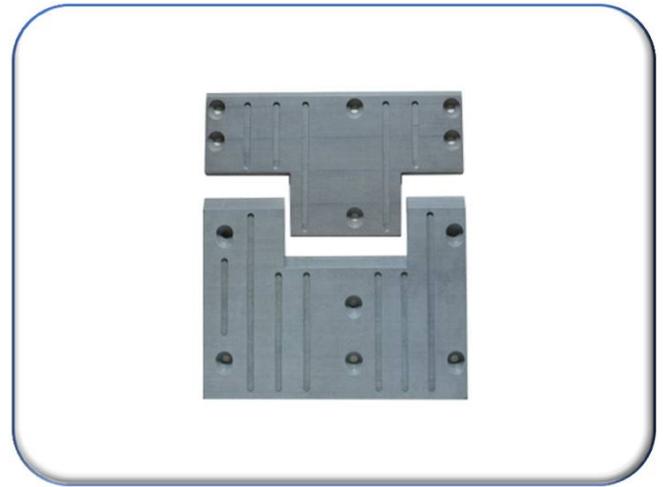
Standard production range

5mm	40mm	Φ1380mm (Integrated type)	Φ1670mm (Quadrisection type)
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What is Nitte Light?

Nitte Light is a base material such as special cotton duck and heat-resistant fabric which are sintered with phenolic resin, laminated, and then uniformly molded under heat and pressure. Nitte Light is highly regarded for its unique properties and excellent cost-performance, especially in the field where water lubrication is used.



It is used for wipers and liners of hot rolling mills in steel plants.

Feature 1

Wear resistance
Wear-resistant material is added to raw material depend on a purpose.

Feature 2

Heat resistance
Water lubrication is required.

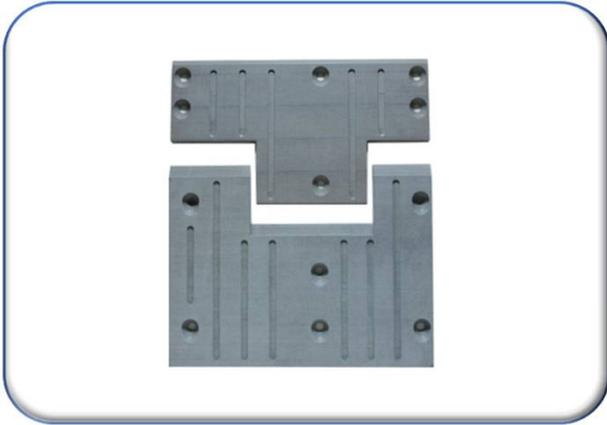
Feature 3

Machinability

Nitte Light - Material property value

Item Name	Shape	Base material	Abrasive grain	Additive	Relative Density	Heat resistance °C	Compressive strength N/mm ²	Flexural strength N/mm ²	Tensile strength N/mm ²
NL-01T	Chip material	Cotton cloth	1%		1.3	140	265	80	70
NL-B01T	Chip material	Cotton cloth	1%		1.3	140	265	90	70
NL-50WT	Chip material	Cotton cloth	1% + 30%		1.3	140	265	80	70
NL-11S	Sheet material	Cotton cloth			1.3	140	290	130	90
NL-B11S	Sheet material	Cotton cloth			1.3	140	290	130	90
NL-NM11	Sheet material	Cotton cloth	1%	Graphite · Alumina	1.35	150	290	130	90
NL-NM24	Sheet material	Cotton cloth	4%	Graphite · Alumina	1.4	150	290	130	90
NL-PGCS	Sheet material	Glass		Graphite	1.7	300	340	150	80
NL-PGNM	Sheet material	Glass	1%	Graphite · Alumina	1.75	300	320	145	80
NL-PGNM24	Sheet material	Glass	4%	Graphite · Alumina	1.8	300	340	145	80

Nitte Light - Lineup



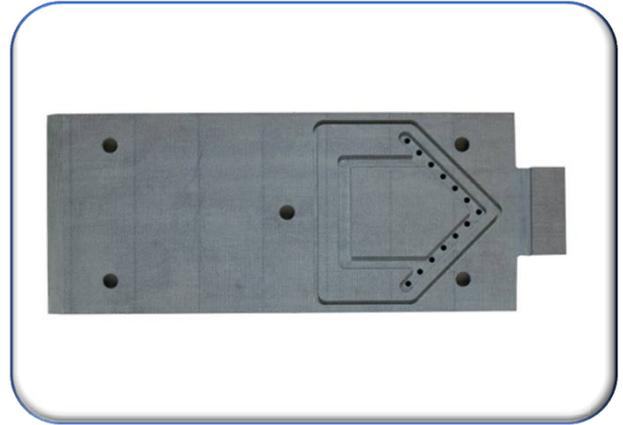
Guide liner

- For metal guide and contact prevention of rolls in a shape steel rolling mill
- For a hot run table
- ☆ Long life and low price



Wiper for Rough/Finishing mill (edge)

- To wipe/scrape out cooling water from rolls
- ☆ To improve wear resistance and heat resistance



Apron liner

- For the exit side of a finishing mill
- For a hot run table
- ◆ For back scratch prevention of a steel sheet
- ◆ For wraparound prevention



Metal bearing

- Bearings for mill rolls
- ☆ Stability improvement

Customers

- NIPPON STEEL & SUMITOMO METAL CORPORATION (各製鉄所)
- JFE Steel Corporation (各製鉄所)
- KOBE STEEL, LTD.
- NISSHIN STEEL CO.,LTD.
- TOKYO STEEL CO.,LTD.
- OSAKA STEEL CO.,LTD.

設備一覽

Facilities	Molding machine	1300ton	1 unit	Table : 2100 × 1650	Kojima Iron Works
		1000ton	1 unit	Table : 1800 × 1600	Ichimaru-Giken
		800ton	1 unit	Table : 1700 × 1600	Ichimaru-Giken
		500ton	1 unit	Table : 1100 × 1100	
		200ton	1 unit	Table : 700 × 650	
	Machining machine	NC router	5 units	20AXGN-1326BT	SHINX
			1 unit	Table : 1300 × 2600	
		Milling machine	1 unit	2UMC 5.5kw	新潟鐵工(倒産)
		Lathe	1 unit	TAL-460 3.7kw	Takisawa Machine To
		Drilling machine	1 unit	1.5kw	精研機(?)
Circular sawing machine		1 unit	3.7kw	協和鐵工所(?)	
Cutting machine		1 unit	1.5kw	フクミ(?)	
Hot air drying device	1 unit	SC-6-CS特	SHINHO KAGAKU KI		
Measuring instrument	Basis weight sensor	1 unit	T6-9088-04J		
	Barcol hardness tester	1 unit	GYZJ 934-1		
	Vernier caliper	1 unit	1500L	Mitutoyo Corporation	
		1 unit	1000L		
		1 unit	600L		
		1 unit	600L	Mitutoyo Corporation	
	Height gauge	1 unit	500L		
		1 unit	0~t15		
	Thickness meter	1 unit	0~t25		
		1 unit	QTM-500	KYOTO ELECTRONI	
Rapid thermal conductivity meter	1 unit	AG-100kNXplus	Shimadzu Corporation		
Shimadzu autograph	1 unit				



Molding process (1300-ton press)



Machining process (No. 1 router) for surface grinding



Machining process (No. 2 router) for shape machining



Company Profile

Trade name	Rocky Chemical Co., Ltd
Head office/factory	Zip code: 811-2112, 1321-10, Ueki, Suemachi, Kasuyagun, Fukuoka Japan TEL (092)935-6903 FAX (092)935-6918
Foundation	November 1, 1975
Capital	JPY 15 million
Line of products	Phenolic resin molded laminate (Product name: Nitte Light)

	Properties	Application	
Performance Functional parts	Wear resistance	Liner	Metal bearing
	Heat resistance	Scraper	
	Chemical resistance	Wiper	
	Excellent thermal insulation	Thermal Insulator	Thermal insulation parts

Enrolled group	Fukuoka Prefecture Plastic Industry Association West Japan Plastic Products Industrial Association
Company History	<p>1960 Yamada Shoten, predecessor of the present RIX Corporation, began to deal in "Epikote." Epikote is an epoxy resin developed by the Shell group. Soon afterward, Kyowa Kogyo Co., Ltd., predecessor of the present Rocky Chemical, started to mix epoxy resin and manufacture epoxy resin FRP machine parts.</p> <p>1975 Rocky Chemical was spun off from Yamada Industrial Co., Ltd. with a capital of three million yen.</p> <p>1998 Rocky Chemical merged Nitte Light Co., Ltd., manufacturer of phenolic resin molded parts, to establish Wakamatsu Factory and increased capital to 20 million yen.</p> <p>2001 Rocky Chemical closed Wakamatsu Factory to move it to the head office factory. Discontinued the mixing of epoxy resin and production of FRP molded parts and specialized in the manufacture of phenolic resin molded parts. Reduced capital to 15 million yen.</p> <p>2013 Facility expansion and reinforcement (Molding machine, Processing machine)</p>



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