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Spraying & granulating    Dry powder pressing



Alumina sintering



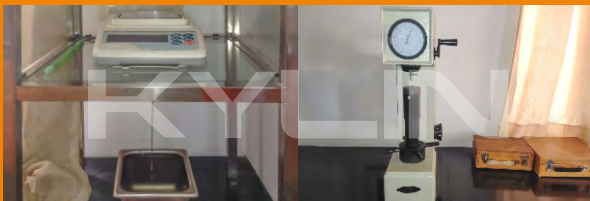
Silicon carbide and boron carbide sintering



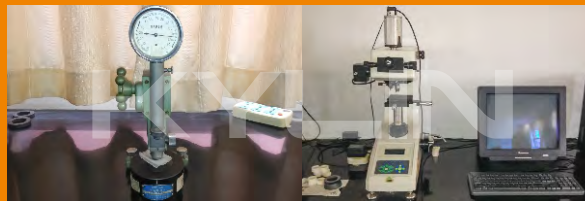
Testing equipment    3-dimensional meters



Fractural & compressive strength tester    Particle size analyzer



Density meters    Rockwell hardness tester

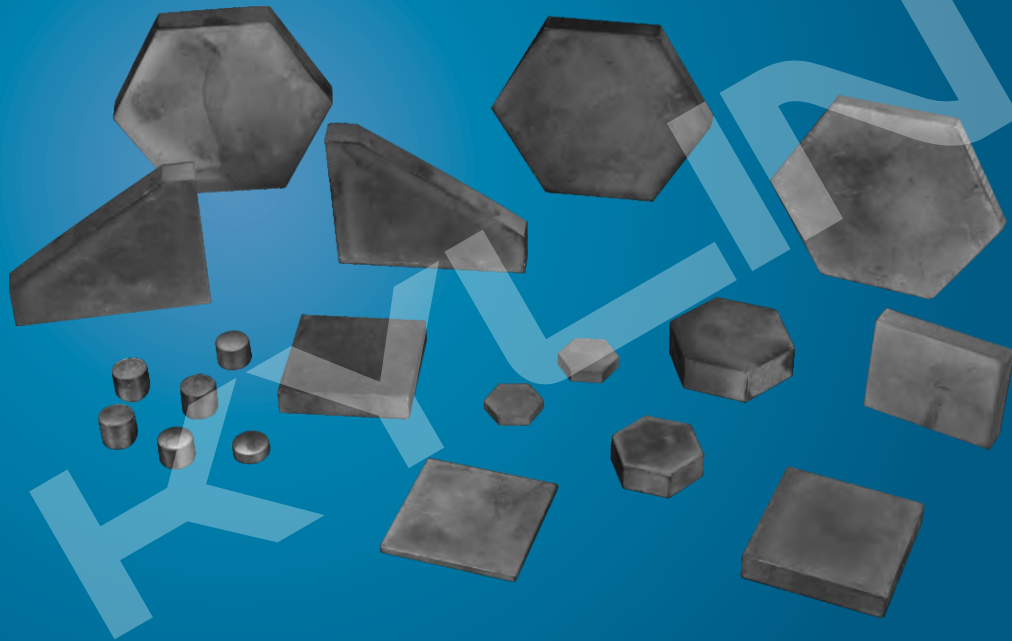


Shore hardness tester    Vickers hardness tester



Warehouse

## Silicon Carbide



### Sintered Silicon Carbide (SSiC) Physical Property

Technical Parameter	Unit	SSiC
Hardness	HS	115
Porosity Rate	%	<0.2
Density	g/cm <sup>3</sup>	>3.10
Compressive Strength	MPa	>2500
Fractural Strength	MPa	380
Coefficient of Thermal Expansion	10 <sup>-6</sup> /°C	4.2
Content of Sic	%	≥98
Free Si	%	≤1
Elastic Modulus	Gpa	410
Fracture Toughness	Mpa/m <sup>2</sup>	3.42
Temperature	°C	1400

Property values are typical and should not be considered specifications. The data presented is in accordance with the present state of our knowledge, but does not absolve the user from carefully checking all products immediately upon receipt. We reserve the right to alter property values within the scope of technical progress or new developments. The recommendations made in this data sheet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use does not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.

## Alumina



### Al<sub>2</sub>O<sub>3</sub> Physical Property

Technical Parameter	Unit	ALO 99.5	ALO 99	ALO 97
Content of Al <sub>2</sub> O <sub>3</sub>	%	99.5	99	97
Density	g/cm <sup>3</sup>	3.9	3.85	3.75
Hardness	HRA	89	88	86
Fractural Strength	Mpa	360	330	300
Compressive Strength	Mpa	1900	1900	1800
Coefficient of Heat Expansion	10 <sup>-6</sup> /K	5.2	5.3	5.8
Modulus of Elasticity	GPa	345	310	280

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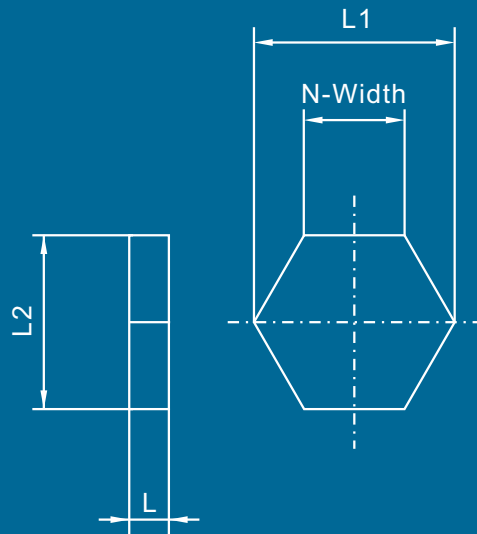
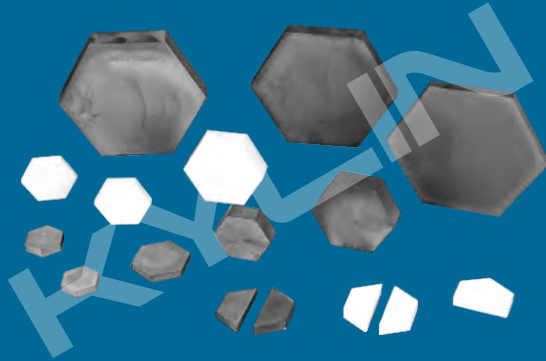
## Boron Carbide

### Sintered Boron Carbide (B<sub>4</sub>C) Physical Property

Technical Parameter	Unit	B <sub>4</sub> C
Density	g/cm <sup>3</sup>	2.5
Hardness	HS	100
Fractural Strength (3-pt bending)	Mpa	410
Compressive Strength	Mpa	2200
Modulus of Elasticity	GPa	360
Coefficient of Thermal Expansion	10 <sup>-6</sup> /K	4.4
Thermal Conductivity	W/m.K	17
Content of B <sub>4</sub> C	%	≥80

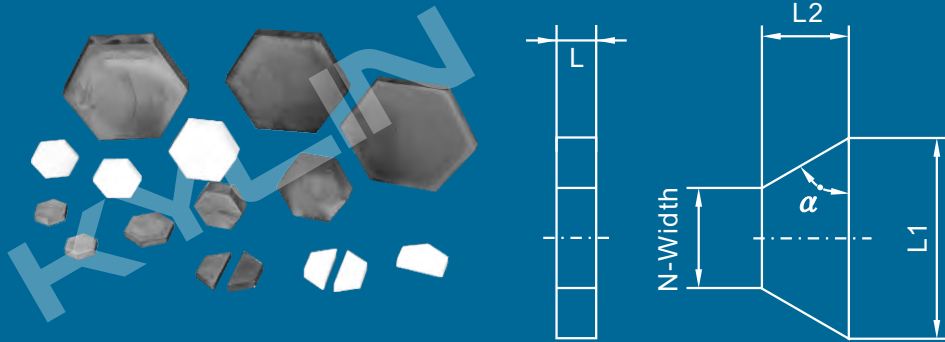
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## Hexagon Tiles



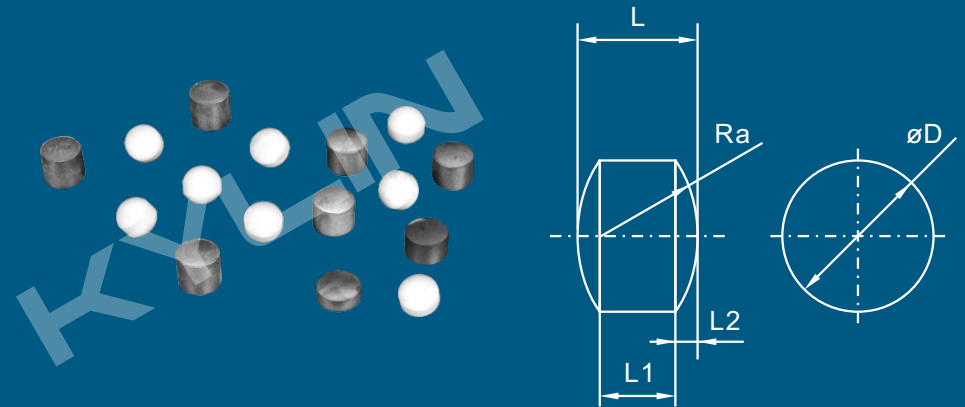
Part #	L1	L	L2	N-Width	Part #	L1	L	L2	N-Width
HEX 30*3	34.64	3	30	6-17.32	HEX 83.14*10	96	10	83.14	6-48
HEX 30*3.5	34.64	3.5	30	6-17.32	HEX 83.14*10.2	96	10.2	83.14	6-48
HEX 30*3.8	34.64	3.8	30	6-17.32	HEX 83.14*10.5	96	10.5	83.14	6-48
HEX 30*3.9	34.64	3.9	30	6-17.32	HEX 83.14*12	96	12	83.14	6-48
HEX 30*4	34.64	4	30	6-17.32	HEX 83.14*15.8	96	15.8	83.14	6-48
HEX 30*4.1	34.64	4.1	30	6-17.32	HEX 83.14*16	96	16	83.14	6-48
HEX 30*4.2	34.64	4.2	30	6-17.32	HEX 83.14*16.3	96	16.3	83.14	6-48
HEX 30*4.5	34.64	4.5	30	6-17.32	HEX 83.14*18	96	18	83.14	6-48
HEX 30*5	34.64	5	30	6-17.32	HEX 83.14*20.2	96	20.2	83.14	6-48
HEX 30*5.1	34.64	5.1	30	6-17.32	HEX 14.2*2.6	16.4	2.6	14.2	6-8.2
HEX 30*5.5	34.64	5.5	30	6-17.32	HEX 20*3	23.09	3	20	6-11.5
HEX 30*6	34.64	6	30	6-17.32	HEX 20*3.5	23.09	3.5	20	6-11.5
HEX 30*6.5	34.64	6.5	30	6-17.32	HEX 20*4.1	23.09	4.1	20	6-11.55
HEX 30*7	34.64	7	30	6-17.32	HEX 20*4.2	23.09	4.2	20	6-11.55
HEX 30*8	34.64	8	30	6-17.32	HEX 20*13	23.09	13	20	6-11.55
HEX 30*9	34.64	9	30	6-17.32	HEX 21*5.5	24.25	5.5	21	6-12.12
HEX 30*9.1	34.64	9.1	30	6-17.32	HEX 25*8	28.87	8	25	6-14.43
HEX 30*9.3	34.64	9.3	30	6-17.32	HEX 25*9	28.87	9	25	6-14.43
HEX 30*10	34.64	10	30	6-17.32	HEX 25*10	28.87	10	25	6-14.43
HEX 30*10.5	34.64	10.5	30	6-17.32	HEX 25*11	28.87	11	25	6-14.43
HEX 30*12	34.64	12	30	6-17.32	HEX 25*12	28.87	12	25	6-14.43
HEX 83.14*5	96	5	83.14	6-48	HEX 25*14	28.87	14	25	6-14.43
HEX 83.14*6	96	6	83.14	6-48	HEX 25*15	28.87	15	25	6-14.43
HEX 83.14*6.2	96	6.2	83.14	6-48	HEX 27.7*6.2	30	6.2	27.7	6-16
HEX 83.14*6.4	96	6.4	83.14	6-48	HEX 29*4.2	33.49	4.2	29	6-16.75
HEX 83.14*6.5	96	6.5	83.14	6-48	HEX 30.5*10	35.22	10	30.5	6-17.61
HEX 83.14*6.7	96	6.7	83.14	6-48	HEX 30.5*9.5	35.22	9.5	30.5	6-17.61
HEX 83.14*8	96	8	83.14	6-48	HEX 43.3*14	50	14	43.3	6-25

## Half Hexagon Tiles



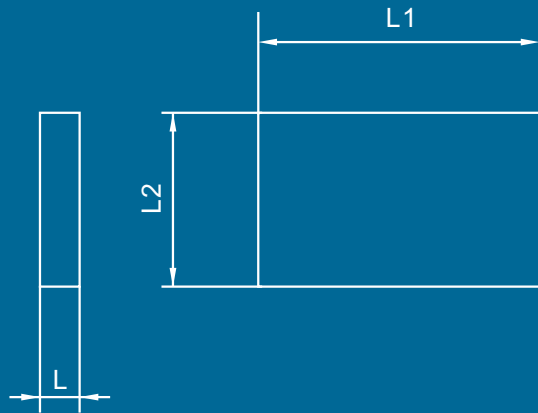
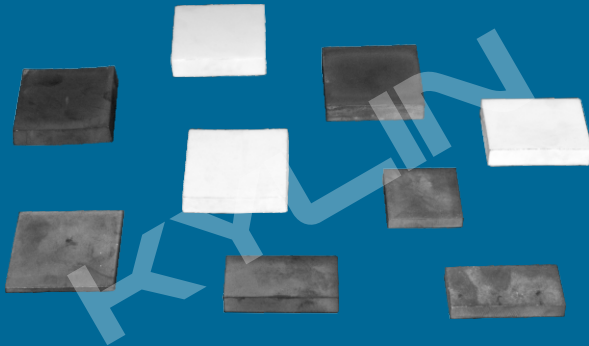
Part #	L1	L	L2	N-Width	$\alpha$
HF HEX 34.64*15*3	34.64	3	15	3-17.32	60
HF HEX 34.64*15*3.5	34.64	3.5	15	3-17.32	60
HF HEX 34.64*15*3.9	34.64	3.9	15	3-17.32	60
HF HEX 34.64*15*4	34.64	4	15	3-17.32	60
HF HEX 34.64*15*4.1	34.64	4.1	15	3-17.32	60
HF HEX 34.64*15*4.2	34.64	4.2	15	3-17.32	60
HF HEX 34.64*15*5	34.64	5	15	3-17.32	60
HF HEX 34.64*15*5.1	34.64	5.1	15	3-17.32	60
HF HEX 34.64*15*6	34.64	6	15	3-17.32	60
HF HEX 34.64*15*7	34.64	7	15	3-17.32	60
HF HEX 34.64*15*8	34.64	8	15	3-17.32	60
HF HEX 34.64*15*9	34.64	9	15	3-17.32	60
HF HEX 34.64*15*9.3	34.65	9.3	15	3-17.32	60
HF HEX 34.64*15*10	34.64	10	15	3-17.32	60
HF HEX 23*10*4.2	23	4.2	10	3-11.55	60
HF HEX 28.87*12.5*10	28.87	10	12.5	3-14.43	60
HF HEX 28.87*12.5*14	28.87	14	12.5	3-14.43	60
HF HEX 33.49*14.5*4.2	33.49	4.2	14.5	3-16.75	60
HF HEX 96*41*6	96	6	41	3-48	60

## Cylinders



Part #	D	L	L1	L2	Ra
CLD 13*11.5	13	11.5	7.5	2	11.56
CLD 13*12	13	12	9.5	1.25	17.525
CLD 13*12.2	13	12.2	9.5	1.35	16.32
CLD 13*15.2	13	15.2	12.5	1.35	16.32
CLD 13*17	13	17	14.5	1.25	17.525
CLD 13.1*8.1	13.1	8.1	5.3	1.4	16.02
CLD 13.1*13.1*9.1	13.1	13.1	9.1	2	11.73
CLD 13.1*13.1*10.3	13.1	13.1	10.3		
CLD 13.1*13.1	13.1	13.1	10.3	1.4	16.02
CLD 13.4*18.3	13.4	18.3	13.7	2.3	10.91
CLD 14*14	14	14	2	6	7
CLD 18.2*16.2	18.2	16.2	14.79		
CLD 19*26	10	26	20		
CLD 30*6	30	6	3	1.5	75.8
CLD 51.5*6.15	51.5	6.15	3.65	1.25	265.85
CLD 69.7*68.59	69.7	68.59	22.8		

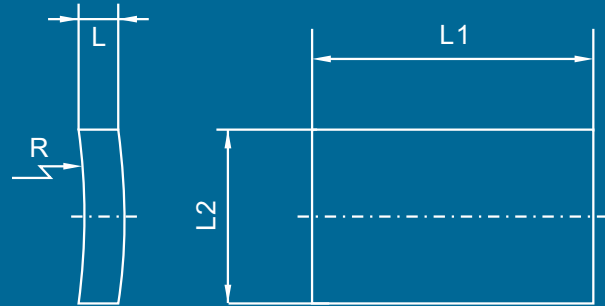
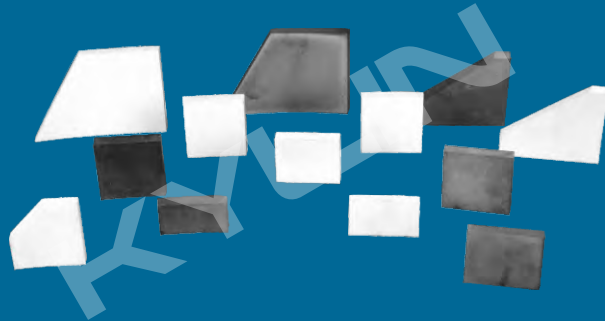
## Rectangle Tiles



Part #	L1	L	L2	Part #	L1	L	L2
REC 50*50*3	50	3	50	REC 100*100*18	100	18	100
REC 50*50*3.5	50	3.5	50	REC 100*100*20	100	20	100
REC 50*50*4	50	4	50	REC 100*100*30	100	30	100
REC 50*50*5	50	5	50	REC 100*100*40	100	40	100
REC 50*50*5.5	50	5.5	50	REC 50*25*5	50	5	25
REC 50*50*6	50	6	50	REC 50*25*6	50	6	25
REC 50*50*7	50	7	50	REC 50*25*8	50	8	25
REC 50*50*8	50	8	50	REC 50*25*8.5	50	8.5	25
REC 50*50*8.5	50	8.5	50	REC 50*25*10	50	10	25
REC 50*50*9	50	9	50	REC 50*25*12.5	50	12.5	25
REC 50*50*10	50	10	50	REC 50*25*15	50	15	25
REC 50*50*10.3	50	10.3	10.3	REC 50*30*10	50	10	30
REC 50*50*11	50	11	50	REC 100*50*16	100	16	50
REC 50*50*12	50	12	50	REC 6.35*25.4*76.2	76.2	6.35	25.4
REC 50*50*12.5	50	12.5	50	REC 12*30*55	55	12	30
REC 50*50*13	50	13	50	REC 12.5*10*30	30	12.5	10
REC 50*50*15	50	15	50	REC 20*6.5*5.5	20	6.5	5.5
REC 100*100*5	100	5	100	REC 25.4*152.4*4.57	152.4	4.57	25.4
REC 100*100*7	100	7	100	REC 30*25*10	30	10	25
REC 100*100*8	100	8	100	REC 35*35*6	35	6	35
REC 100*100*9	100	9	100	REC 35*35*8	35	8	35
REC 100*100*11	100	11	100	REC 36*80*90	90	36	80
REC 100*100*13	100	13	100	REC 45*46.5*8	46.5	8	45
REC 100*100*15	100	15	100	REC 49.5*10*3	49.5	3	10
REC 100*100*16	100	16	100	REC 51.1*51.1*5	51.1	5	51.1
REC 100*100*17	100	17	100	REC 58*12*12	58	12	12

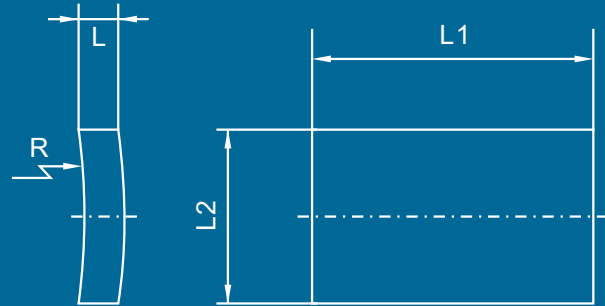
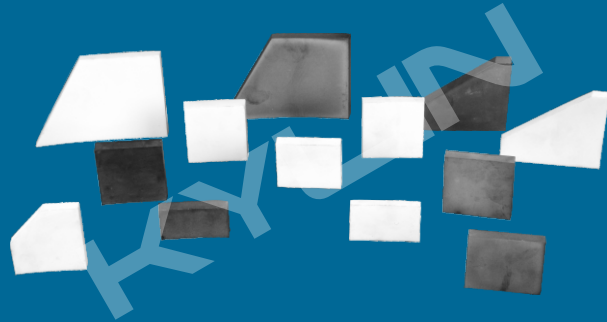


## Curved Rectangle Tiles



Part #	L1	L	L2	R	Part #	L1	L	L2	R
CV REC 50*50*3.3-R400	50	3.3	50	R400	CV REC 50*50*7-R400(LLEFT CUT)				
CV REC 25*50*3.3-R400	25	3.3	50	R400	CV REC 50*50*7-R400(RRIGHT CUT)				
CV REC 50*50*4-R400	50	4	50	R400	CV REC 50*50*7-R420	50	7	50	R420
CV REC 25*50*4-R400	25	4	50	R400	CV REC 50*50*7-R345	50	7	50	R345
CV REC 50*25*4-R400	50	4	25	R400	CV REC 40*50*7-R345	40	7	50	R345
CV REC 50*50*4-R400(LLEFT CUT)-15					CV REC 50*30*7-R345	50	7	30	R345
CV REC 50*50*4-R400(RRIGHT CUT)-15					CV REC 69.4*80*7-R345(LLEFT CUT)				
CV REC 50*50*5-R400	50	5	50	R400	CV REC 69.4*80*7-R345(RRIGHT CUT)				
CV REC 25*50*5-R400	25	5	50	R400	CV REC 50*50*7.5-R400	50	7.5	50	R400
CV REC 50*25*5-R400	50	5	25	R400	CV REC 25*50*7.5-R400	25	7.5	50	R400
CV REC 50*50*5-R400(LLEFT CUT)-15					CV REC 50*50*8-R400	50	8	50	R400
CV REC 50*50*5-R400(RRIGHT CUT)-15					CV REC 25*50*8-R400	25	8	50	R400
CV REC 50*50*5-R360	50	5	50	R360	CV REC 50*25*8-R400	25	8	50	R400
CV REC 104.6*5*11-R332.5	104.6	5	11	R332.5	CV REC 50*50*8-R400(CUT)-25				
CV REC 50*50*6-R400	50	6	50	R400	CV REC 50*50*8-R420	50	8	50	R420
CV REC 25*50*6-R400	25	6	50	R400	CV REC 50*50*8.5-R400	50	8.5	50	R400
CV REC 50*25*6-R400	50	6	25	R400	CV REC 25*50*8.5-R400	25	8.5	50	R400
CV REC 50*50*6-R400(LLEFT CUT)					CV REC 50*50*8.5-R345	50	8.5	50	R345
CV REC 50*50*6-R400(RRIGHT CUT)					CV REC 40*50*8.5-R345	40	8.5	50	R345
CV REC 50*50*7-R400	50	7	50	R400	CV REC 50*30*8.5-R345	50	8.5	30	R345
CV REC 25*50*7-R400	25	7	50	R400	CV REC 69.4*80*8.5-R345(LLEFT CUT)				
CV REC 50*25*7-R400	50	7	25	R400	CV REC 69.4*80*8.5-R345(RRIGHT CUT)				

## Curved Rectangle Tiles



Part #	L1	L	L2	R	Part #	L1	L	L2	R
CV REC 50*50*9-R400	50	9	50	R400	CV REC 64.5*80*10-R345(RIGHT CUT)				
CV REC 25*50*9-R400	25	9	50	R400	CV REC 69.4*80*10-R345(LEFT CUT)				
CV REC 50*25*9-R400	50	9	25	R400	CV REC 69.4*80*10-R345(RIGHT CUT)				
CV REC 50*50*9-R400(LEFT CUT)-15					CV REC 50*50*10-R360	50	10	50	R360
CV REC 50*50*9-R400(RIGHT CUT)-15					CV REC 50*50*10-R420	50	10	50	R420
CV REC 50*50*9.1-R400	50	9.1	50	R400	CV REC 50*50*10-R711	50	10	50	R711
CV REC 50.1*50.1*9.2-R400	50.1	9.2	50.1	R400	CV REC 25*50*10-R711	50	10	25	R711
CV REC 25.1*50.1*9.2-R400	25.1	9.2	50.1	R400	CV REC 50*25*10-R711	25	10	50	R711
CV REC 50.1*25.1*9.2-R400	50.1	9.2	25.1	R400	CV REC 50*50*11-R400	50	11	50	R400
CV REC 50*50*9.5-R400	50	9.5	50	R400	CV REC 25*50*11-R400	25	11	50	R400
CV REC 25*50*9.5-R400	25	9.5	50	R400	CV REC 50*25*11-R400	50	11	25	R400
CV REC 50*50*10-R400	50	10	50	R400	CV REC 50*50*11-R400(LEFT CUT)				
CV REC 50*25*10-R400	25	10	50	R400	CV REC 50*50*11-R400(RIGHT CUT)				
CV REC 25*50*10-R400	50	10	25	R400	CV REC 50.2*50.2*11.2-R400	50.2	11.2	50.2	R400
CV REC 50*50*10-R400(LEFT CUT)-15					CV REC 25.2*50.2*11.2-R400	25.2	11.2	50.2	R400
CV REC 50*50*10-R400(RIGHT CUT)-15					CV REC 50.2*25.2*11.2-R400	50.2	11.2	25.2	R400
CV REC 112.5*75*10-R400 (LEFT CUT)					CV REC 50*50*12-R410	50	12	50	R410
CV REC 112.5*75*10-R400 (RIGHT CUT)					CV REC 25*50*12-R410	25	12	50	R410
CV REC 50*50*10-R345	50	10	50	R345	CV REC 50*50*12-R410(LEFT CUT)-15				
CV REC 40*50*10-R345	40	10	50	R345	CV REC 50*50*12-R410(RIGHT CUT)-15				
CV REC 50*30*10-R345	50	10	30	R345	CV REC 50*50*13-R400	50	13	50	R400
CV REC 64.5*80*10-R345(LEFT CUT)									