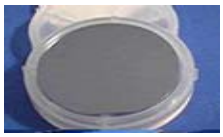
Silicon Crystal & Compound Semiconductor

Gallium Phosphide (GaP) Substrate

Gallium Phosphide (GaP) Substrate is an orange-yellow semi-translucent material foamed by high purity of Gallium and Phosphorus, grown by Liquid Encapsulated Czochralski (LEC) method, which is a proven important semiconductor material and is widely used for LED industry.

No.	Items		Standard Specifications
1	Diameter	mm	2" /50.8±0.5
2	Growth Method		LEC
3	Conductivity		P/N/Semi-insulating
4	Orientation		<100>, <111>
5	Thickness	μm	(300-400)±20
6	Resistivity		0.003-0.3
7	OF/IF Flat	mm	16±2/8±1, EJ or as per SEMI
8	Hall Mobility	$cm^2/v.s$	≥100
9	Carrier Concentration	$atoms/cm^3$	(2-20)E17
10	TTV	μm max	10
11	Bow	μm max	30
12	Warp	μm max	30
13	EPD	cm^{-2}	≤2E5
14	Surface Finish		P/E, P/P, E/E
15	Packing		Single wafer container inside, carton box outside.

Gallium Antimonide (GaSb) Substrate



Gallium Antimonide (GaSb) Substrate is a compound material foamed by high purity Gallium and Antimony elements, grown by Liquid Encapsulated Czochralski (LEC) method, which is widely applied for optoelectronics industry. 2" 3" and 4" is available.

No.	Items		Standard Specifications		
1	Size		2"	3"	4"
2	Diameter	mm	50.8±0.5	76.2±0.5	100±0.5
3	Growth Method		LEC	LEC	LEC
4	Conductivity		P/N	P/N	P/N
5	Orientation		<100>, <111>		
6	Thickness	μm	500±25	600±25	800±25
7	Flats Option		EJ or as per SEMI		
8	Orientation Flat	mm	16±2	22±2	32±2
9	Identification Flat	mm	8±1	11±1	18±1
10	Hall Mobility	$cm^2/v.s$	600-3500 or as required		
11	Carrier Concentration	$atoms/cm^3$	(1-100)E17 or as required		
12	TTV	μm max	15	15	15
13	Bow	μm max	15	15	15
14	Warp	μm max	20	20	20
15	EPD	cm^{-2} max	3000	3000	3000
16	Surface Finish		P/E, P/P, E/E	P/E, P/P, E/E	P/E, P/P, E/E
17	Packing		Single wafer container inside, carton box outside.		

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