

# THE PRIMARY ALLOYS

## THE CALYSPO



### Certification ISO 9001

Regeal AFFIMET is approved ISO 9001 and gets each year the renewal of its certification with success.



### A quality recognized by the users:

The big names of the foundry recognize the quality of the Regeal AFFIMET's products. This legitimization associates to our flexibility make us a major supplier of this sector.



### Quality / Laboratory

Our quality team seeks its expertise to serve you and to ensure the best quality level.

Our Laboratory and our trial foundry are as well to your service for your development and your metals expertise needs.

Our teams have to their disposal the latest technology (a trial foundry and two spectrometers, microscopes, binoculars bears, buffing machines) which allows them to make some metallurgical analysis and some strict controls in order to meet your sharpest issues.



### A team at your disposal:

Production in small and big quantities in accordance with your needs (from 1 ton to 25 tons)

Brochet ingots of 7 kg

Flexibility and reactivity in the best delivery time of the market

Closely controls at each step of the process

Guaranteed traceability

Supply chain under control in his totality

# CHEMICAL ANALYSIS

Designation	SI	Fe	Cu	Mn	Mg	Ni	Zn	Ti	Other elements which modifying %
Calypso 67B	6.70-7.30	0.14	0.02	0.04	0.30-0.40	0.02	0.04	0.10-0.15	Na : 0.0015
Calypso 67B1	6.70-7.30	0.14	0.02	0.04	0.50-0.60	0.02	0.04	0.10-0.15	Na : 0.0015
Calypso 67R	6.70-7.30	0.14	0.02	0.04	0.30-0.40	0.02	0.04	0.10-0.15	Sb : 0.12-0.16
Calypso 67R1	6.70-7.30	0.14	0.02	0.04	0.50-0.60		0.04	0.10-0.15	Sb : 0.12-0.16
Calypso 67XB	6.70-7.30	0.05	0.02	0.02	0.30-0.37	0.02	0.02	0.10-0.15	Ca : 0.0020
Calypso 67XB1	6.50-7.00	0.05	0.02	0.02	0.50-0.55	0.02	0.02	0.10-0.15	Ca : 0.0300
Calypso 69B	9.10-9.90	0.14	0.02	0.02-0.10	0.30-0.37		0.04	0.08-0.12	Ca : 0.0030
Calypso 61D	10.00-11.00	0.35-0.45	0.02	0.035-0.45	0.08-0.20		0.02	0.10-0.15	Sr : 0.0350-0.0450
Calypso 67D1	10.00-11.00	0.35-0.50	0.02	0.40-0.50	0.30-0.40	0.04	0.09	0.10-0.15	Sr : 0.0300-0.0500
Calypso 43X	12.7-13.3	0.27	0.02	0.04	0.04	0.04	0.09	0.04	
Calypso 85R	4.70-5.30	0.12	2.70-3.30	0.09	0.30-0.40		0.09	0.10-0.15	Sb : 0.10-0.16
Calypso 82P1	11.00-13.00	0.30	0.80-1.30	0.150	0.90-1.30	0.80-1.30	0.10	0.08-0.16	P : 0.0080-0.0150

# MECHANICAL CHARACTERISTICS

Designation	State	Rm MPa	Rp0.2 MPa	A %	HBS
Calypso 67B	Y23	250-290	165-250	8-4	80-100
	Y30	200	90	16	55
	Y33	270-310	165-250	21-14	80-100
Calypso 67B1	Y23	260-310	200-290	4.5-1.5	90-110
	Y33	300-340	200-290	18-11	90-110
Calypso 67R	Y30	200	90	14	55
	Y33	260-300	155-230	22-15	75-95
Calypso 67R1	Y33	300-340	200-290	18-10	90-110
Calypso 67XB	Calypso 67XB	285	225	7	90
	Y33	300	215	17.5	90
Calypso 69B	Y23	280	220	4	95
	Y30	200	95	14	60
	Y33	300	220	14	95
Calypso 61D	Y40	300-310	170-180	5-10	85
Calypso 43X	Y30	150-170	80	4-7	60
Calypso 85R	Y30	240	170	2	70
	Y33	415	345	4	125
Calypso 82P1	Y33	300	260	0.5	110

Y20 - Sand casting without heat treatment  
 Y23 - Sand casting with heat treatment  
 Y30 - Gravity die casting without heat treatment  
 Y33 - Gravity die casting with heat treatment  
 Y40 - High pressure die casting without heat treatment  
 Y43 - High pressure die casting with heat treatment

# POSSIBLE FIELD OF USE

Calypso 67B	Miscellaneous parts - Automotive - Electricity - Building - General mechanics
Calypso 67B1	
Calypso 67R	Miscellaneous parts with mechanicals characteristics - High series part - Metallic die - Automotive - Armement - Electronic
Calypso 67R1	
Calypso 67XB	Complex parts in sand casting with high requirement - Aeronautics - Armement
Calypso 67XB1	
Calypso 69B	Parts sand casting with high compactness requirement and mechanicals characteristics
Calypso 61D	Security pieces - Automotive - Leisure - Electrical goods
Calypso 67D1	
Calypso 43X	Highly complex pieces - Thickness < 4 mm - Electronic industry - General mechanical
Calypso 85R	Casting pieces in metallic die - Automotive - General mechanical
Calypso 82P1	Automotive pistons - Cylinder block for Motorbike