

Chart of Energy Zones

CAT	SYSTEM	HR	LACTATE	GENERAL/SPECIFIC	EMPHASIS
REC	NA	NA	NA	NA	Drills, some recovery work
White					
EN1	AEROBIC	120 – 140	0 TO 2.0	Has an overall general effect: Increase in stroke volume SV(amount of blood being pumped by the heart). Improves capillary network & transport of energy. Improves fat metabolism.	Perfect technique, Distance Per Stroke(DPS), efficiency.  Criteria used to determine training speed. Priority order: Pulse, Stroke count or tempo, time of the repeat/speed
Pink					
EN2	AEROBIC	140 – 160	1.0 TO 4.0	Effect specific to the working muscle. Enhances steady state where lactate is removed or "used" as fast as it's produced.	Perfect technique, Distance Per Stroke(DPS), efficiency.  Criteria used to determine training speed. Priority order: Pulse, Stroke count or tempo, time of the repeat/speed
Red					
EN3	AEROBIC	160 – MAX	4.0 TO 10.0	Has both general and specific effects. GENERAL: Max O2 uptake and delivery to the working muscle.(very dependant on SV and red cell mass). SPECIFIC: Both removal rate and levels of tolerance of lactic acid in the working muscle	Technique, Distance Per Stroke(DPS), efficiency.  Criteria used to determine training speed. Priority order: Tempo, Time of repeat, stroke count, pulse rate.
Blue					
SP1	ANAEROBIC	MAX	8.0 TO 16.0	Has both general and specific effects. GENERAL: Improves delivery of energy through anaerobic sources. Improves pain threshold(mental) SPECIFIC: Improves buffering capacity of the working muscles. Improves tolerance of lactic acid buildup in the working muscle	Emphasis shifts away from technique work, and more towards racing and challenging the athletes. Criteria order of importance: Speed, tempo, stroke count, pulse rate
Purple					
SP2	ANAEROBIC	MAX	MAX	SPECIFIC: Max lactate production. High end tolerance and buffering capacity.	Emphasis on racing skills. Criteria: Speed, tempo
Green					
SP3	ANAEROBIC	NA	1.0 TO 3.0	SPECIFIC: Enhances usage creatine pool by the working muscle	Perfect technique at Max velocity for short distances. Should as the season progresses be race tempo specific.
Gold					

