



Guardian-CR is a hollow CoMo cylinder with mild activity designed for use as top bed grading in a variety of hydroprocessing unit applications. In addition to excellent physical integrity, Guardian-CR provides high void space for particulate trapping. These rings, along with Guardian-CT trilobes, are typically loaded above the main bed catalyst and aid in providing even flow distribution.

Eurecat's 3 mm, 5 mm and 9 mm Guardian Rings deliver a very cost effective and environmentally friendly way to maximize overall catalyst life since they are manufactured utilizing carefully selected high quality regenerated catalyst as a portion of their formulation.

### Guardian-CR Cobalt/Molybdenum Rings Typical Properties

Nominal Diameter	mm	3	5	9
	in	1/8	3/16	3/8
Sock Load Density	kg/m <sup>3</sup>	600	570	540
	lb/ft <sup>3</sup>	37	36	34
Void Fraction	%	50	50	50
Side Crush Strength	kg/mm	1.4	1.6	2.0
	lb/mm	3.0	3.5	4.5
Bulk Crush Strength	Mpa	1.0	1.0	1.0
	lb/in <sup>2</sup>	145	145	145

Standard Drum Packaging	kg	125
	lb	275
Standard Supersack Packaging	kg	726
	lb	1,600

