Water - Purifiers .co.uk

Crystal-Right™

Crystal-Right™ silica crystals are a natural choice for today's water conditioning systems.

The synthetic zeolite medium works by an ion exchange process which removes iron,manganese **and** hardness (and reduces ammonia)

The zeolite crystals uses sodium aluminosilicate carefully produced and processed by Mineral-Right using an exclusive technology.

The minimum pH requirement is 6.0 and Crystal Right ™ balances the pH in these acidic waters. Crystal Right ™ works at it's best on clear water, i.e. when the iron/manganese are in a dissolved form. Crystal Right ™ will also reduce hardness with no extra treatment. The media bed can be sanitised with chlorine from time to time (some valves can do this automatically). The regeneration process is exactly the same as that used in a water softener and requires regeneration with salt (sodium chloride).

There are two types of Crystal Right ™, CR100 is used where the pH is between 6 and 7 and CR200 is used where the pH is 7 or above.

Crystal Right 100 is the most durable of the manufactured minerals. It raises the pH value of acidic water while it reduces hardness, iron, and manganese. Low pH waters tend to be more corrosive than neutral or higher pH waters. This pH adjustment and reduction of undesirable minerals is maintained by the excellent filtration and backwashing properties.

Physical Properties	Bulk density		1.2kg/l	Packaging	34kg(28litre)bags
Operating Conditions	Maximum concentration of iron + manganese			1044	5mg/l
				1054	10mg/l
				1354 & larger	15mg/l
	Min TDS		80ppm	Freeboard	50% of bed depth
	Min Hardness		50ppm	Service flowrate	40 bed-volumes/hr
	Min pH	CR100	6	Backwash flowrate	285l/min/m²
		CR200	7	Salt dosage	160gm/litre

Regeneration

The amount of water produced between regenerations depends on the hardness, sodium & iron/manganese levels.

The apparent hardness = total hardness (mg/l $CaCO_3$) + 2 x sodium (mg/l) + iron & manganese in mg/l.

The capacity or water produced between regenerations (Cap m³) at 100mg/l apparent hardness is shown as Cap m³ in the table overleaf.

e.g. for a 1354 CR100 system this is 21.8 m³, or at 200ppm is 10.9m³

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Crystal-Right Filters for Manganese & Iron Reduction

- ➔ Operating pressure
  - Minimum – 1.4 bar
  - Maximum – 8 bar 2 to 38 ºC
- ➔ Operating temperature
  - Minimum – 2 ºC
  - Maximum – 38 ºC
- ➔ Standard units use CR100.
  CR200 avaiable on request.
- ➔ Fitted with Autotrol 255 valve.
- ➔ Consumable materials:

Crystal-Right should not need to be changed frequently if the pH of the water is not too low and it is regenerated properly.

The brine tank must be kept charged with granular salt.

Size	Volume	Flowrate		Capacity (100ppm)		Salt	Brine tank
	Litres	m³/hr	litres/min	CR100	CR200	kg	litres
1044	28	1	16.67	7.4m³	12.4m³	4	125
1054	42	1.5	25	13.4m³	20.7m³	5.2	125
1354	72	2	33.33	21.8m³	31.2m³	7.5	125
1465	99	2.5	41.67	29.7m³	39.5m³	10.5	200
1665	127	3	50	38m³	50.8m³	14	300
1865	170	4	66.67	51m³	67.8m³	17	300
2160	198	5.5	91.67	59m³	79m³	21	400
2469	311	7	116.67	93m³	124m³	32	400
3072	538	11	183.33	161m³	214m³	55	750
3672	679	15	250	203m³	293m³	74	750

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