





Zeoplant Presentation

Sustainable Solution for the Increased Irrigation Water Shortage in our Booming Environment

Zeoplant - a unique mixture of many different minerals.



Tecto silicates and devitrified volcanic glass (rhyolitic tuff/tuffit, kali tuff/tuffit, christoballite, pyrolusite) and maximum 20-25 % of clinoptilolite (zeolite)





Zeoplant is a natural resource and a mining product

Broken rock pieces of Zeoplant's minerals.

Natural Occurring Phyllo Silicates and Devitrified Volcanic Glasses



Illite, montmorillonite with a very special composition of trace elements



How you can save water?



Our contribution as part of the solution:



What is Zeoplant?



- The product Zeoplant is a very effective water retaining soil
 amendment, consisting of fully natural mineral materials.
- Zeoplant is a one-time application
- Zeoplant reduces the infiltration speed of the sweet soil by up to 85%!
- Zeoplant contains lots of nutrients and helps the healthy growth of the plants.

Guaranteed savings & benefits by using Zeoplant:

- Irrigation Water Saving of min. 50%
- Savings of 50% electricity for pumping of irrigation water
- Direct wear & tear savings on maintenance for pumping units & irrigation equipment
- Reduction of storage cost for irrigation water (minimize/ eliminate tanks)
- Reduction of chemical fertilizers during maintenance and operation through prevention of leaching.
- Therefore **monetary savings** in time, logistics, labour, spreading
- **Healthier and faster growth** of plants and crops which can be substantially proven (temperature controlled areas, i.e. Green houses and open areas)
- pH is reduced and EC increased which effects growth rate by providing the plants more nutrients.
- Zeoplant has a **high CEC** and contains lots of nutrients
- Replaces the usage of peat moss completely
- Reduces carbon footprint

Irrigation schemes in the U.A.E. and reduced rates with Zeoplant



		Month										
Type of Plant	Unit	May, June, July, August	May, June, July, August		September, October, November, March, April	September, October, November, March, April		December, January, February	December, January, February			
			with Zeoplant			with Zeoplant			with Zeoplant			
Palm Trees	Liters/tree	150	60		110	50		75	38			
Ornamental Trees	Liters/tree	100	40		75	35		50	25			
Shrubs	Liters/tree	15	7		11	5		7.5	4			
Hedges	Liters/m ²	10	5		8	4		5	3			
Ornamental Grass	Liters/m ²	10	5		10	5		8	4			
Lawns	Liters/m ²	12-15	6-7		10	5		8	4			
Cactus & Succulents	Liters/plant	8	4		6	3		4	2			
Rock & Run plants	Liters/plant	10	5		8	4		6	3			

Easy application of Zeoplant





Pre-mixed Soil

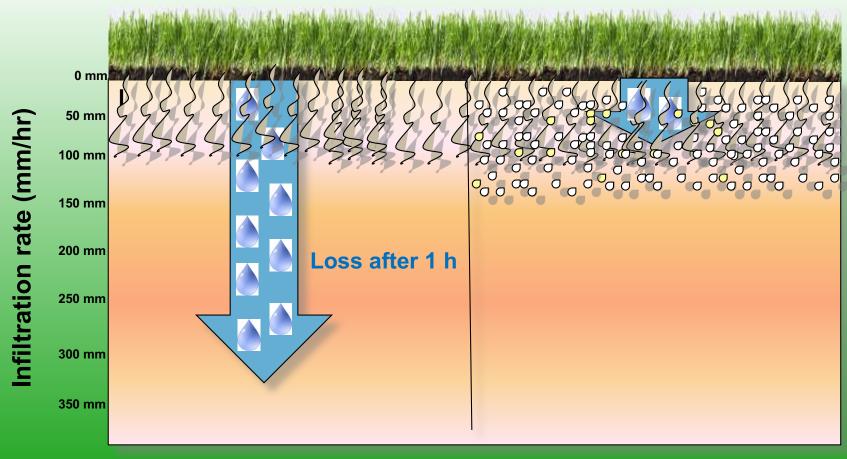




Zeoplant reduces the Infiltration Rate & Increases the Water Holding Capacity of the Soil



The chart shows how deep the irrigation water flows down the soil within 1 hour



Soil without Zeoplant

Soil with Zeoplant













		ya —	o —		IRRIGATION WATI	ER SCHEDULE (SUMMER) FOR C49	99 Project (Park	-4) AS ON 12/05/2	2016.							
STATION	ATION Plant VALVE VALVE PROGRAMME-A PROGRAMME-B TOTAL TOTAL TOTAL													Zeoplant	Irrigation		
NUMBER	Description	NUMBER	FLOW	CYCLE-1 (7	.00AM-9.30AM)	CYCLE-2 (3	.00PM -5.30PM)	DUI	RATION	CONSUMPTION		CONSUMPTION		Water	r Saving		
			IN m ³ /HOUR	Irrigation Sci	hedule in Minutes	Irrigation Sci	hedule in Minutes	IN M	IINUTES		IN m ³	INLITER		INLITER		Saving	Saving
					Zeoplant Schedule			Former Schedule	Zeoplant Schedule	Former Schedule	Zeoplant Schedule	Former Schedule	Zeoplant Schedule	in Liter	in%		
1	Lawn	S-01	6,86	25	10	20	10	45	20	5,15	2,29	5.145	2.287	2.858	55,56		
2	Lawn	S-02	7,2	25	10	20	10	45	20	5,40	2,40	5.400	2.400	3.000	55,56		
3	Palms, Trees,	D01	12,11	25	10	20	10	45	20	9,08	4,04	9.083	4.037	5.046	55,56		
4	Palms, Trees,	D01	9,86	25	10	20	10	45	20	7,40	3,29	7.395	3.287	4.108	55,56		
5	Palms, Trees,	D01	8,68	25	10	20	10	45	20	6,51	2,89	6.510	2.893	3.617	55,56		
6	Palms, Trees,	D01	12,84	25	10	20	10	45	20	9,63	4,28	9.630	4.280	5.350	55,56		
7	Shrubs, GC	D02	13,48	25	10	20	10	45	20	10,11	4,49	10.110	4.493	5.617	55,56		
8	Shrubs, GC	D02	7,16	25	10	20	10	45	20	5,37	2,39	5.370	2.387	2.983	55,56		
-	TOTA		.,	200	80	160	80	360	160	58,64	26,06	58.643	26.063	32.579	55,56		
NOTE:-		L		W	ithout Zeoplant		With Zeoplant										
A1 (0.12)		DAILY WAT	ERING HOURS	WITHOUT ZEOPL	ANT = 3.35 + 2.65= 6.0) HOURS		DAILY WATERING									
- 2	1	DAILY WATER CONSUMPTION IN m ³ WITHOUT ZEOPLANT = 58.64 m ³ DAILY WATER CONSUMPTION IN m ³ WITH ZEOPLANT = 26.06 m ³															
		DAILY WAT	ER CONSUMPT	TION IN LITERS WI	THOUT ZEOPLANT= 5	58,643 LITERS		DAILY WATER CO	NSUMPTION IN LITER	RS WITH ZEOPLA	NT = 26,063 <u>LITERS</u>						
cknowledged by: Abu Dhabi Municipality Representative					Dorsch Consulting Representative				Zeoplant Representative								
	1001 574 V = 100											1965 dis 77 1967 (1969 -					
						·-				Simon Engelfr	ied - Project Mana	ger					



Daily Irrigation Water & Run time Savings at Al Adla 5 Parks Khalifa City

	Former consumption	Zeoplant consumption	Savings in lit	Former Run time in h	Zeoplant Run time in h	Run time Savings in hours
Park 3	31,905	14,180	17,725	3.74	1.66	2.08
Park 4	58,643	26,063	32,579	6	2.7	3.3
Park 5	58,073	25,810	32,263	7.5	3.3	4.2
Park 6	71,355	31,713	39,642	7.48	3.32	4.16
Park 7	55,425	24,633	30,792	6.75	3	3.75
Total	275,400 lit	122,400 lit	153,000 lit	31.47 h	13.98 h	17.49 hours





















Weekly recording & documentation

Irrigation Water Schedule for Delma Park – E-19 as on 06. Aug. 2014

STATION	Plant	VALVE	VALVE	PROGRAMME-A		PROGR/	OGRAMME-B TOTAL TOTA		AL	TOTAL		Zeoplar	Zeoplant Irrigation		
NUMBER	Description	NUMBER	FLOW	CYCL	E-1	CYC	LE-2	DURAT	ION	CONSUM	CONSUMPTION CONSUMPTION		Water Saving		
			IN m ³ /HOUR	Irrigation Sched	ule in Minutes	Irrigation Sche	dule in Minutes	le in Minutes IN MINUTES		IN m ³		IN LIT	ER	Saving	Saving
				Former Schedule	6.8.2014	Former Schedule	6.8.2014	Former Schedule	6.8.2014	Former Schedule	6.8.2014	Former Schedule	6.8.2014	<u>in Liter</u>	<u>in %</u>
1	Lawn	S01	14.33	10	4	5	3	15	7	3.58	1.67	3,580	1,670	1,910	53.35
2	Lawn	S02	17.4	10	4	5	3	15	7	4.35	2.03	4,350	2,030	2,320	53.33
3	Lawn	S03	18.74	10	4	5	3	15	7	4.69	2.17	4,690	2,170	2,520	53.73
4	Lawn	S04	18.52	10	4	5	3	15	7	4.63	2.16	4,630	2,160	2,470	53.35
5	Lawn	S05	16	10	4	5	3	15	7	4.00	1.86	4,000	1,860	2,140	53.50
6	Lawn	S06	19.5	10	4	5	3	15	7	4.88	2.28	4,880	2,280	2,600	53.28
7	Lawn	S07	19.55	10	4	5	3	15	7	4.89	2.28	4,890	2,280	2,610	53.37
8	Lawn	S08	15.41	10	4	5	3	15	7	3.85	1.79	3,850	1,790	2,060	53.51
9	Lawn	S09	6.17	10	4	5	3	15	7	1.54	0.72	1,540	719	821	53.31
10	Lawn	S10	12.86	10	4	5	3	15	7	3.22	1.50	3,220	1,500	1,720	53.42
		S11	18.7	10	4	5	3	15	7	4.68	2.18	4,680	2,180	2,500	53.42
11	Lawn						3		7					2,470	53.46
12	Lawn	S12	18.47	10	4	5		15		4.62	2.15	4,620	2,150	2,510	53.40
13	Lawn	S13	18.81	10	4	5	3	15	7	4.70	2.19	4,700	2,190	2,450	53.26
14	Lawn	S14	18.4	10	4	5	3	15	7	4.60	2.15	4,600	2,150	1,590	53.18
15	Lawn Palms, Trees,	S15	11.96	10	4	5	3	15	7	2.99	1.40	2,990	1,400		
16	Shrubs, GC	SD01	3.21	40	15	20	10	60	25	10.45	4.35	10,450	4,350	6,100	58.37
	Palms, Trees,	SD02	7.24												
17	Shrubs, GC	SD03	6.3	40	15	20	10	60	25	19.90	8.29	19,900	8,290	11,610	58.34
	Palms, Trees,	D03	13.6												
18	Shrubs, GC	D01	12.92	40	15	20	10	60	25	29.81	12.42	29,810	12,420	17,390	58.34
	Jiii uba, uc	D04	16.89												
19	Palms, Trees,	D02	14.7	40	15	20	10	60	25	14.70	6.13	14,700	6,130	8,570	
	Shrubs, GC														
	тота	L =		310	120	155	85	465	205	136.08	59.72	136,080	59,719	76,361	54.43

Weekly recording & documentation - Extract



Irr	Irrigation Water Schedule for Delma Park – E-19 as on 06. Aug. 2014														
STATION	N Plant VALVE VALVE PROGRAMME-A PROGRAMME-B TOTAL TOTAL TOTAL								ΓAL	Zeoplant	Zeoplant Irrigation				
No.	Description	NUMBER	FLOW	СУС	LE-1	CYCLE-2		DURATION		CONSUMPTION		CONSUMPTION		Water	Saving
			IN m ³ /HOUR	Irrig Sched	lule in Min	Irrig Sched	lule in Min	IN MIN	NUTES	IN	m³	IN LI	TERS	Saving	Saving
				Former Schedule	6.8.2014	Former Schedule	6.8.2014	Former Schedule	6.8.2014	Former Schedule	6.8.2014	Former Schedule	6.8.2014	<u>in Liters</u>	<u>in %</u>
15	Lawn	S15	11.96	10	4	5	3	15	7	2.99	1.40	2,990	1,400	1,590	53.18
16	Palms, Trees, Shrubs, GC	SD01	3.21 7.24	40	15	20	10	60	25	10.45	4.35	10,450	4,350	6,100	58.37



Reduced Run Time of Irrigation System

	No Zeoplant	With Zeoplant	<u>Savings</u>
Daily Irrigation Run Time	7 hours + 45 min	3 hours + 25 min	4 hours + 20 min
Daily Irrigation Water Consumption	136,080 lit	59,720 lit	76,360 lit



ROI: less than 1 year

Cost cutting of Construction Budgets



