

Table 1

	Parameters					
Temp. (°C)	Type of graph	Solubility (mM)	S ₀ (mM)	S _t (mM)	K _s (M ⁻¹)	SE
25±2 °C	A _p	1.43±0.02	1.37±0.08	18.78±1.32	189.3±2.6	13.13
37±2 °C	A _p	1.61±0.04	1.48±0.07	27.2±1.77	221.7±1.4	16.89

Footnote: S₀, Intrinsic solubility of DLX in absence of MeβCD (mM), S_t, DLX concentration in presence of maximum concentration of MeβCD, K_s, apparent stability constant, SE, Solubilising efficiency

Table 2

Type of acrylate	Functional group	Solids (%)	Viscosity (cP)
DURO-TAK 87-900A	None	43	1800
DURO-TAK 87-2287	-OH	50.5	18000
DURO-TAK 87-235A	-COOH	36.5	8000

^a This data is obtained from Henkel Ltd. www.drugdeliverypolymers.com

Table 3

PSA	R ² ±SD	J _{ss} (μg/h cm ²)±SD	Q ₇₂ (μg/cm ²)±SD
87-900A	0.815±0.01	36.26±0.81	9267.73±24.34
87-2287	0.827±0.08	40.67±1.28	11245.25±1036.65
87-235A	0.865±0.01	38.16±0.71	9257.60±450.92

Q₇₂: Cumulative amount of DLX permeated after 72 h

J_{ss}: Drug permeated per unit time per unit area

Table 4

DLX (% w/w)	J _{ss} (μg/h cm ²)±SD	Q ₇₂ (μg/cm ²)±SD
5	28.01±0.49	7227.3±92.8
10	36.43±1.14	11245.7±100.3
20	37.48±3.22	11410.8±73.8
30	41.85±5.55	12181.6±105.5
40	51.78±1.69	12884.7±101.3

Table 5

FC	DLX ^a	HPMC ^a	PSA ^a	<u>PE^a</u>					Solvent ^b
				NoPE	OA	Brij 98	TP	IPM	
DIA-1	22.7	15	45	---	---	---	---	---	15
DIA-2	22.7	15	45	---	5	---	---	---	15
DIA-3	22.7	15	45	---	---	5	---	---	15
DIA-4	22.7	15	45	---	---	---	5	---	15
DIA-5	22.7	15	45	---	---	---	---	5	15

^a Amount used in mg^b Amount used in ml**Table 6**

PEs	J _{ss} (µg/h/cm ²)	Q ₂₄ (µg/cm ²)	R ² ^a	ER
NoPE	61.14±1.43	4933±212	0.912	1
OA	90.92±0.87*	8177.9±312	0.834	1.49
IPM	113.28±1.11*	10011.4±232	0.803	1.85
TP	121.46±1.32*	11025.8±343	0.875	1.99
Brij 98	117.59±1.56*	10364±287	0.877	1.89

^a Linearity coefficient of the flux

* Indicates significant difference from control patch ($p < 0.05$). All values are means of three experiments±SD. Q₂₄ demonstrate the amount of DLX permeated after 24 h from each DIA patch

Table 7

FC	DC (%)	MC (%)	MU (%)	Surface pH	FE	WVTR (%)
DIA-1	96.4±3.3	1.03±0.005	1.1±0.012	6.5±0.04	>220	0.21±0.003
DIA-2	98.3±2.1	0.89±0.002	0.93±0.06	6.4±0.08	>250	0.72±0.003
DIA-3	95.4±2.8	0.65±0.041	0.76±0.05	6.6±0.06	>250	0.75±0.004
DIA-4	98.7±4.2	0.55±0.003	0.87±0.03	6.4±0.03	>250	0.78±0.003
DIA-5	98.1±3.7	0.76±0.011	0.54±0.01	6.2±0.03	>250	0.8±0.004

Table 8

Parameters	Oral doses		Transdermal dose (10 mg/kg)
	(10 mg/kg)	(20 mg/kg)	
$T_{1/2}$ (h)	21.02±3.2	22.2±3.7	35.04±5.2
T_{max} (h)	3.5±0.54	3.7±0.66	4±0.7
C_{max} (ng/ml)	41.70±5.5	34.7±8.3	70.31±11.2
AUC_{0-72} (ng/ml)*h	646.27±66.3	1332.36±232.7	2997.29±387.4
$AUC_{0-\infty}$ (ng/ml)*h	889.59±42.2	2054.65±176.2	4029.20±544.2
MRT (h)	27.8±3.5	58.49±4.2	53..43±5.1
Cl/F (mg)/(ng/ml)/h	0.02±0.008	0.7±0.1	0.3±0.04
Vl/F (mg)/(ng/ml)	0.68±0.13	0.70±0.15	0.0188±0.003