

## M.A.T.R.I.S. SmarTTabs®

### Latest developments in production of controlled release tablets

Unlike the traditional tablets for oral administration of medicaments or food supplements in modified release form, the M.A.T.R.I.S. SmarTTabs® by I.P.S. consist in a polyvalent matrix comprising an agglomerate formed by mini-particles of active substance (about 200 to 600 microns in size), directly and individually covered by one or more layers of polymeric membranes.

The membranes utilized are such as to adjust the release according to predetermined modes, thus totally removing the need of inert ingredients.

In this way, the matrix allows high dosage tablets, even fractionable without altering the modified release characteristics (as it happens with the traditional retard tablets), thus allowing to obtain an optimal flexibility of the unitary dosage to be administered.

The M.A.T.R.I.S. SmarTTabs® can also be crumbled, in case of swallowing difficulties, in a spoon or directly in the oral cavity and then swallowed with a minimal amount of liquid, with a perfect coverage of possible bad tastes and a smooth flow of the product down the stomach.



The matrix in the formulation of disintegrating tablets, to be considered as a mere container of the modified release active substance and not as a traditional tablet, allows also to obtain extemporaneous suspensions with a great dosage variety, by disintegrating for instance half tablet = 200 mg; one tablet = 400 mg; one and a half tablet = 600 mg and so forth, in any suitable liquid and then swallowing the active substance, whose modified release characteristics were not affected, in the form of a tasteless homogeneous suspension, very suitable for geriatric and pediatric use.

The M.A.T.R.I.S. SmarTTabs® cause the active substance to reach, promptly after the administration, the G.I. tract starting the modified release, at the stomach and/or intestine level according to the properties of the used membranes.

Furthermore and in view of the particular characteristics of fine and flowable particle size, the active substance spreads in a quick and uniform way on the whole surface of the G.I. tract, thus avoiding the risks of decreased bioavailability and undesirable side effects, potentially due to high concentrations of the active ingredient in a specific place of the G.I. tract.

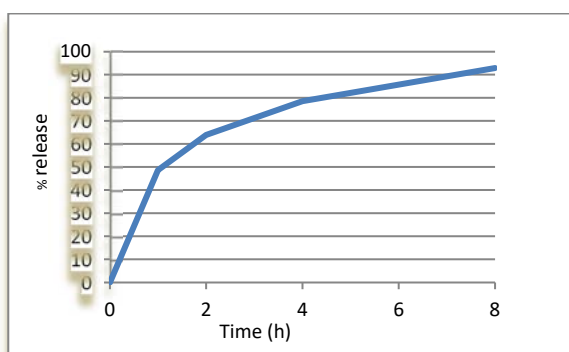
**ALA MATRIS SmarTTabs® 400 mg TABLETS**

Apect	Tablets
Color	Almost white
Identification (HPLC)	Positive
Assay	400 mg/g ± 10%
Disintegration	1 minute
Releases:	1h -48.6% 2h- 63.9% 4h-78.5% 8h-92.9%

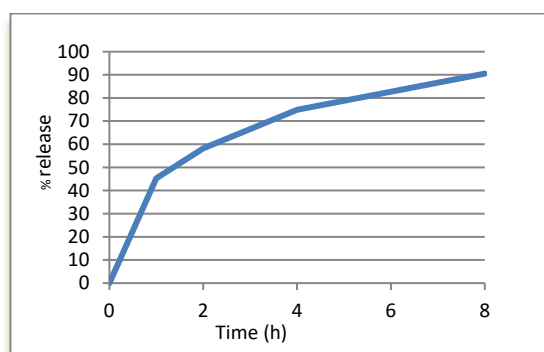
**ALA MATRIS SmarTTabs® 600 mg TABLETS**

Apect	Tablets
Color	Almost white
Identification (HPLC)	Positive
Assay	600 mg/g ± 10%
Disintegration	1 minute
Releases:	1h -45.3% 2h-58.2% 4h-74.9% 8h-90.5%

**ALA MATRIS SmarTTabs® 400 mg TABLETS**



**ALA MATRIS SmarTTabs® 600 mg TABLETS**



M.A.T.R.I.S.® is an exclusive technology, originally developed by I.P.S. – International Products & Services, patent pending internationally.

The M.A.T.R.I.S. SmarTTabs® process is carried on in compliance with cGMP for food supplements.