



26 March 2007

To whom it may concern

**Re: Summary of different stability tests for Rapidflex:**

The following tests were conducted according to different questions and situation that can be occur during application.

**1. Properties of Rapidflex during drying process:**

Rapidflex was sprayed and dried for 24 hours outside the lab. The properties were tested in parallel after drying interior (in the laboratory) and exterior (on the laboratory roof)

**a. Interior results:**

After 24 hours outside the lab. The films were kept at RT environment and the results are as follows:

Time (days)	1	2	3	5	8	12	15
Tensile strength N/mm	0.06	0.12	0.08	0.06	0.06	0.06	0.06
Elongation %	1823	2320	2224	2478	2137	2361	2400
Water absorbance %	1.75	1.63	1.14	1.22	1.55	1.56	0.81
Cold flexibility °C.	-20	-20	-20	-20	-20	-20	-20

**b. Exterior results:**

After 24 hours outside the lab. The films were kept on the laboratory roof exposed to sun and hot weather and the results are as follows:

Time (days)	1	2	3	5	8	12	15
Tensile strength N/mm	0.06	0.09	0.11	0.1	0.11	0.16	0.13
Elongation %	1823	2329	2297	2444	2379	2244	2604
Water absorbance %	1.75	2.2	NA	1.62	0.97	1.52	1.36
Cold flexibility °C.	-20	-20	-20	-20	-20	-19	-18

The results demonstrate very stable properties while the final curing happened after 48 hours from application.

The tensile strength is higher after exposing to UV because of cross linking of the film while the elongation does not change.

The water absorption in both cases is negligible.

The cold flexibility after 12 days of UV exposes is slightly decrease.





## 2. UV Resistance of Rapidflex:

Rapidflex was sprayed and dried for 24 hours outside the lab. After 24 hours the film was exposed to UV in a QUV device.

The results are as follows:

\* 1000 hours at QUV represent about 5 years of UV exposes

Time at the QUV chamber	0 hours	48 hours	1000* hours
Tensile strength N/mm	0.06	0.14	0.5
Elongation %	1823	2087	2279
Water absorbance %	1.75	NA	3
Cold flexibility °C.	-20	-15	-12

The results following the same patterns as the previous tests.

The tensile strength is higher after exposing to UV because of cross linking in the film while the elongation does not change.

The cold flexibility after UV exposes decrease.

## 3. Water resistance of Rapidflex:

Rapidflex was sprayed and dried for 24 hours outside the lab.

After 24 hours the film was dipped in a water bath and the properties were measured after 2 and 7 days:

Time at the water bath	0 days	2 days	7 days
Tensile strength N/mm	0.06	0.05	0.045
Elongation %	1823	1817	2330
Cold flexibility °C.	-20	-20	-20

Rapidflex is resistance to a water surroundings even before final curing.

## 4. Resistance to concrete pouring 24 hours after application:

Rapidflex was sprayed and dried for 24 hours outside the lab.

After 24 hours a cake of concrete poured over the film.

After 15 days drying of the concrete the film was tested qualitatively and found to be intact with a very good adhesion to the concrete.

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