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FIRAT Plastik Kaucuk San. ve TIC. A.S.
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Final results of the weathering fastness test Test order no. 211461/20

Dear Mr. Kara,

Please find below the following results of the final assessment of weathering fastness after artificial weathering of **9,020** hours:

Irradiation energy: **18 GJ/m²**

Artificial weathering according to DIN EN 513, procedure **2** (simulation of a severe climate zone **S**) up to an raised irradiation dose of **18 GJ/m²** in the wave length range between 300 nm and 800 nm.

1. Colourimetric assessment:

The sample colour was measured by means of a spectrophotometer of a wave length area of 360 - 750 nm, standard light type D65, gloss inclusion, 10° normal inspection. The colour distance ΔE^*_{ab} was determined according to DIN EN ISO 11664-4. Prior to and after artificial weathering, colour was measured at the same position on the sample to obtain reproducible results despite the structured surface.

2. Visual assessment

Visual assessment was performed according to DIN EN 20105-A02 with the grey scale.

Time of exposure	Dose of irradiation	Colour coordinates			Total colour distance ΔE^*_{ab}
		ΔL^*	Δa^*	Δb^*	
1000 h	2 GJ/m ²	0.6	0.5	-0.3	0.8
2000 h	4 GJ/m ²	1.0	0.5	0.2	1.1
3000 h	6 GJ/m ²	0.9	0.5	0.2	1.1
4000 h	8 GJ/m ²	1.0	0.5	0.2	1.1
5000 h	10 GJ/m ²	1.0	0.5	0.2	1.1
6000 h	12 GJ/m ²	1.1	0.6	0.3	1.3
7000 h	14 GJ/m ²	1.1	0.6	0.4	1.3
8000 h	16 GJ/m ²	1.1	0.6	0.3	1.3
9020 h	18 GJ/m ²	1.1	0.6	0.4	1.3

Time of exposure	Dose of irradiation	Grey scale value		Remark
		A 02	A 03	
1000 h	2 GJ/m ²	4 - 5	-	more yellow, lighter
2000 h	4 GJ/m ²	4 - 5	-	lighter
3000 h	6 GJ/m ²	4 - 5	-	lighter, duller
4000 h	8 GJ/m ²	4 - 5	-	more yellow, lighter, duller
5000 h	10 GJ/m ²	4 - 5	-	more yellow, lighter, duller
6000 h	12 GJ/m ²	4 - 5	-	more yellow, lighter, duller
7000 h	14 GJ/m ²	4 - 5	-	more yellow, lighter, duller
8000 h	16 GJ/m ²	4 - 5	-	more yellow, lighter, duller
9020 h	18 GJ/m ²	4 - 5	-	more yellow, lighter, duller

If you have any questions, don't hesitate to contact me.

Best regards

SKZ - Testing GmbH

i. A.



Dr. Philipp Lang
Group Manager Testing Laboratory
Profiles and Sealants