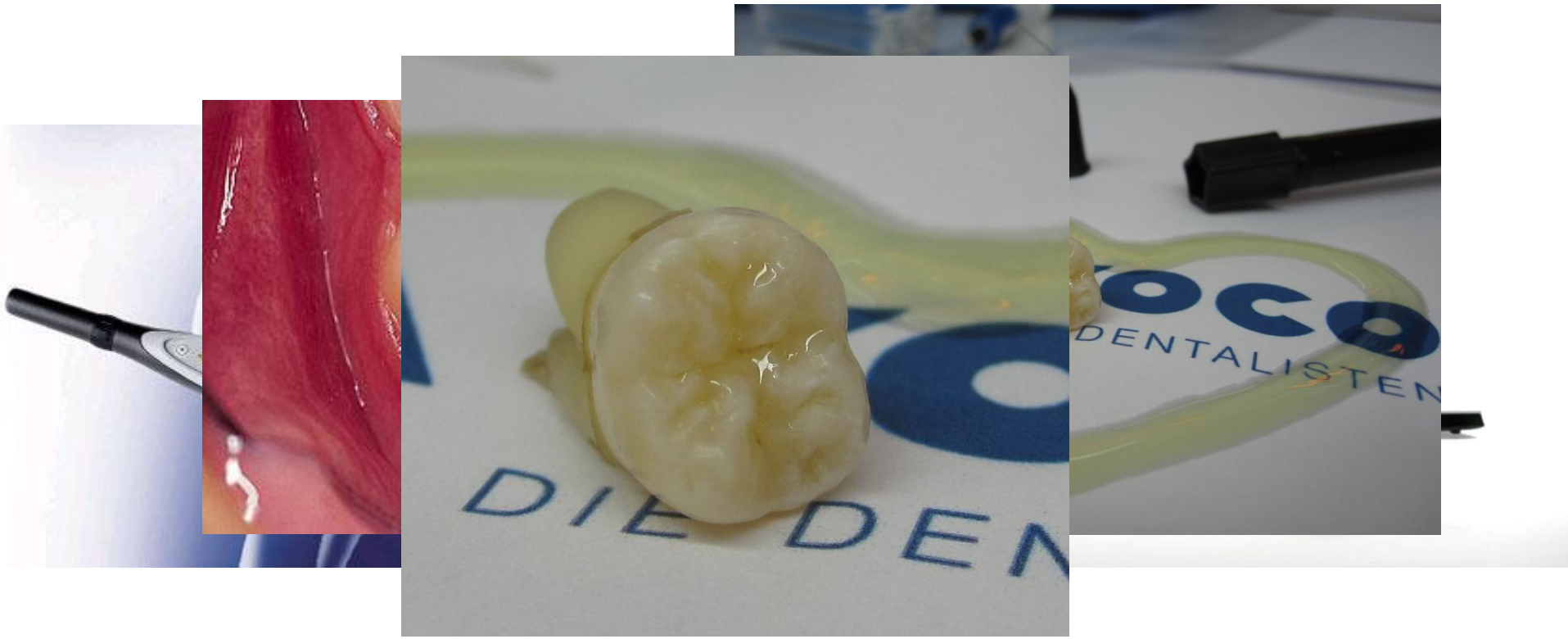
UV-Vis Study of different fissure sealants



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Results

Material	ES	SML	UXT	DDS	DS
Filler content [%]	55	45	57	0.1	31.7
Transmission [%] 405 nm (emission)					
0.5 mm	54.2	20.6	14.5	73.8	27
1.0 mm	33.5	18	3.8	63	15.8
1.5 mm	19	16.1	0.8	53	8.2
2.0 mm	21	13.4	0.4	44.8	2
Transmission [%] 540 nm (irradiation)					
0.5 mm	82.2	33	26.1	85.6	51.4
1.0 mm	75	32.1	9.7	84.7	32.8
1.5 mm	61	23.8	3.1	81.6	17.1
2.0 mm	59.5	14.5	1.5	66.9	8.4
Transmission [%] 655 nm (emission, irradation)					
0.5 mm	87	43.7	35.2	87.1	61.6
1.0 mm	83.3	37.1	15.7	86.7	44.7
1.5 mm	71.7	32.8	6	84.2	26.5
2.0 mm	72	18.4	3	70.4	17.1
Transmission [%] 675 nm (irradation)					
0.5 mm	87.5	45.6	37	87.3	63
1.0 mm	84.2	37.6	17.1	87	46.5
1.5 mm	73	34.2	6.7	84.6	28.1
2.0 mm	73	19	3.4	70.8	18.8

Table 1: Filler content and UV-Vis data

PROPERTIES OF A HIGHLY FILLED CLEAR SEALANT FOR OPTICAL CARIES DIAGNOSIS

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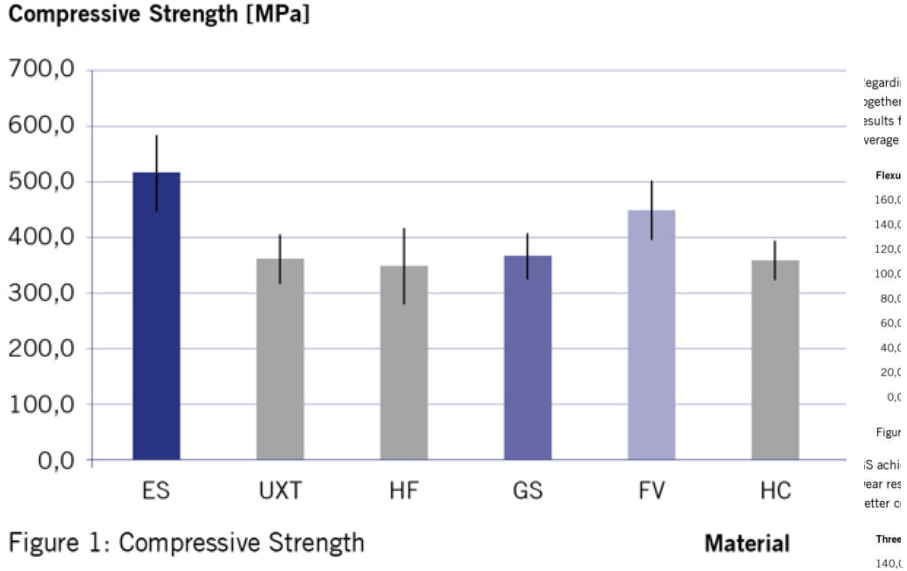

Figure 1: Compressive Strength

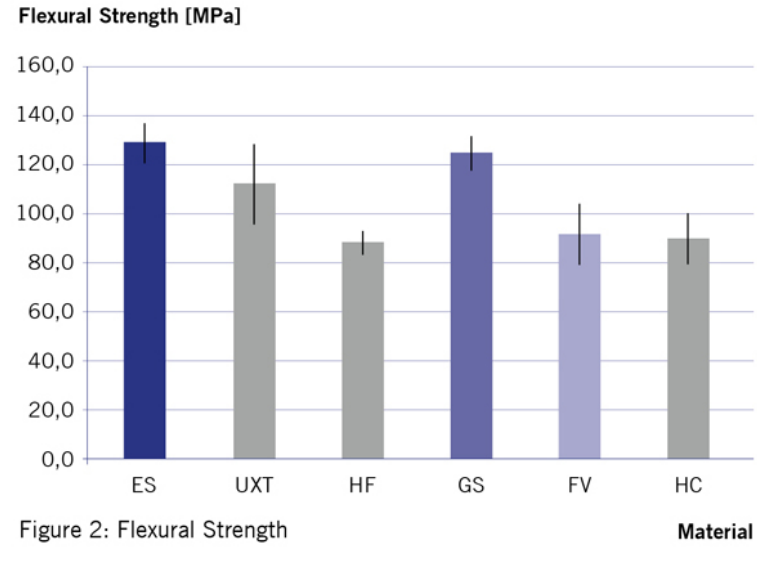

Figure 2: Flexural Strength

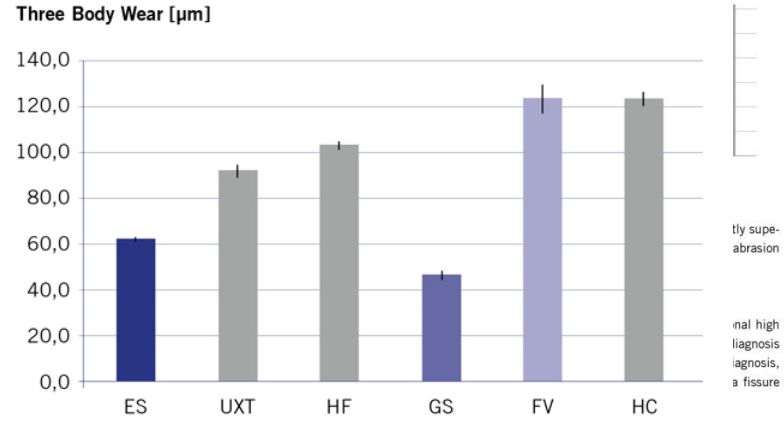

Figure 3: Three body wear