Table S1: Composition, main processing condition and rheological properties of the four cheese

models

Data are presented as means ± the standard error. Different letters indicate significant differences

between means (p<0.05). *** means <0.0001, **<0.001 and *<0.05. The test parameters for the

Whipped product was different, so the results cannot be compared.

	Variables	p-value	Hard			Soft			Processed			Whipped		
Composition	Protein (%)		24			24			24			24		
	Lipid (%)		20			20			20			20		
	Dry-matter (%)		51			51			51			51		
Processing conditions	Time of heat treatment (min)		35			18			17			80		
	Specific step of preparation											Foam		
Rheological properties	Fracture force (N)	***	108.25	±	19.5 a	15.65	±	7.96 b	8.88	±	3.99 b	5.93	±	1.34
	Adhesive force (N)	***				-1.90	±	0.85 b	-8.19	±	4.13 a	-0.08	±	0.02
	Springiness	*				0.28	±	0.15 b	0.20	±	0.11 a	0.71	±	0.05

Table S2: ANCOVA model coefficients for items of the food comfortability questionnaire by products.

Only the items significantly affected by the oral health (stimulated salivary flow and/or dental status)

were reported. Significant coefficients (p-value<0.05) were in bold. F: Fisher ratio; p: p-value; *:p-

value<0.05 **: p-value<0.001; μ: fixed effect; SFS: Stimulated Salivary Flow; Dent: Dental status (with

satisfactory dentition as reference); Dent x SFS: interaction effect of the dental status and the

stimulated salivary flow.

Variables / Product		Hard			Soft			Processed			Whipped		
General comfort		SFS	Dent	Dent x SFS	SFS	Dent	Dent x SFS	SFS	Dent	Dent x SFS	SFS	Dent	Dent x SFS
Comfort		0.00	**4.78***	0.16	2.41	0.13	0.73	2.54	1.20	3.15	0.62	1.05	1.53
		-0.61	**-13.97**	2.36	-1.62	5.34	-4.21	0.67	9.03	-8.05	6.54	7.28	-7.63
Easy		0.39	2.80	2.60	0.07	2.55	0.34	0.05	1.75	0.12	2.31	**4.17***	0.17
		-1.75	-17.36	7.14	-0.22	-7.00	1.86	-0.78	-5.89	1.26	3.40	**-11.71**	2.13
Bolus formation													
Incisor	F^p	0.99	1.25	**4.32***	0.98	1.28	0.58	1.06	0.68	2.15	3.15	0.15	0.25
	μ	-1.66	-14.90	**7.32**	0.11	-0.66	1.52	-0.42	-7.52	3.66	6.38	2.71	-2.75
Molar	F^p	0.77	0.67	**4.26***	1.37	0.31	0.19	0.90	0.04	1.96	1.35	0.36	0.39
	μ	-1.60	-11.74	**6.11**	0.70	-0.54	0.90	-0.54	-4.92	3.28	4.19	2.43	-2.85
Masticate	F^p	1.51	3.01	1.15	1.12	0.21	0.09	1.51	3.01	1.15	**3.80***	0.95	0.08
	μ	0.66	-11.73	4.06	1.99	2.59	-0.91	0.66	-11.73	4.06	**4.54**	-6.38	1.49
Humidify	F^p	0.31	**5.73***	0.35	1.73	1.13	1.26	0.00	2.13	0.20	0.44	**7.35****	1.22
	μ	3.33	**-4.43**	-2.81	5.42	4.13	-4.80	1.20	-1.80	-1.85	5.67	**-2.05**	-6.10
Product texture attributes													
Sticky	F^p	0.54	1.17	0.27	0.06	3.00	1.15	1.51	0.19	0.04	0.72	**4.54***	0.17
	μ	3.14	9.45	-2.90	2.05	11.45	-3.96	3.53	3.42	-1.02	3.24	**14.98**	-2.62
Greasy	F^p	0.00	0.06	0.61	0.07	1.57	0.02	0.00	**5.47***	2.81	0.59	0.05	2.45
	μ	1.64	6.98	-3.74	-0.63	5.98	-0.73	3.30	**21.91**	-8.07	1.75	12.32	-7.17
Dry	F^p	0.02	1.41	2.18	0.02	0.80	1.12	0.04	0.43	0.60	0.04	**6.37***	0.05
	μ	3.85	21.79	-9.70	-1.62	-3.23	3.44	-0.85	-1.89	2.02	0.55	**18.56**	-1.72
Dough	F^p	0.35	1.63	0.75	2.16	1.92	0.02	0.16	0.10	0.96	0.01	**4.16***	0.32
	μ	0.38	14.14	-5.10	3.07	5.68	-0.66	3.29	9.02	-4.84	-2.07	**4.23**	3.45
Firm	F^p	0.61	1.50	1.06	1.51	1.30	**4.60***	0.18	1.84	2.18	1.57	0.36	2.03
	μ	0.27	13.67	-5.36	1.61	18.00	**-8.87**	1.61	12.49	-5.35	-7.03	-9.39	7.36
Melting	F^p	0.02	1.70	0.18	0.30	0.03	1.67	0.02	0.30	1.04	2.66	**7.21****	2.81
	μ	-0.27	-7.13	1.77	-1.84	-11.51	6.70	2.45	6.28	-5.32	8.47	**2.71**	-7.94
Flavor attributes													
Salty	F^p	0.01	0.58	0.21	0.81	1.26	0.12	**5.35***	0.28	0.08	0.22	0.37	0.03
	μ	1.11	6.15	-2.10	-1.58	6.67	-1.58	**-5.85**	-0.22	1.28	-1.53	0.84	0.75
Sweet	F^p	12.88	0.00	0.79	1.52	3.41	1.06	0.20	**4.79***	0.04	7.45	2.27	6.60
	μ	1.91	-2.03	1.27	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	0.00

Variables / Product	Hard		Soft		Processed		Whipped	
Dental status	Poor	Satisfactory	Poor	Satisfactory	Poor	Satisfactory	Poor	Satisfactory
General comfort								
Comfort	**64 ± 15**	**53 ± 23**	78 ± 18	76 ± 15	81 ± 16	76 ± 15	52 ± 23	48 ± 18
Easy	79 ± 12	73 ± 18	93 ± 10	89 ± 11	92 ± 9	88 ± 14	**73 ± 18**	**65 ± 17**
Bolus formation								
Incisor	**90 ± 11**	**88 ± 13**	95 ± 7	97 ± 6	96 ± 6	95 ± 10	89 ± 19	89 ± 19
Molar	**91 ± 10**	**89 ± 10**	95 ± 7	96 ± 7	96 ± 8	96 ± 8	91 ± 14	89 ± 16
Masticate	88 ± 11	84 ± 14	93 ± 12	95 ± 7	95 ± 9	92 ± 14	**84 ± 15**	**81 ± 20**
Humidify	**71 ± 14**	**63 ± 18**	83 ± 15	80 ± 13	84 ± 14	80 ± 13	**70 ± 19**	**59 ± 18**
Product texture attributes								
Sticky	22 ± 14	27 ± 22	24 ± 12	29 ± 13	37 ± 18	39 ± 17	**27 ± 18**	**38 ± 24**
Greasy	14 ± 14	15 ± 17	24 ± 13	29 ± 18	**29 ± 15**	**38 ± 18**	13 ± 14	13 ± 16
Dry	35 ± 20	41 ± 24	4 ± 10	6 ± 11	3 ± 9	5 ± 9	**31 ± 23**	**47 ± 28**
Dough	31 ± 18	37 ± 21	31 ± 14	36 ± 14	38 ± 18	39 ± 14	**28 ± 19**	**38 ± 21**
Firm	32 ± 19	37 ± 16	**10 ± 14**	**13 ± 14**	7 ± 12	11 ± 13	9 ± 19	11 ± 16
Melting	11 ± 15	6 ± 12	39 ± 18	38 ± 16	43 ± 17	40 ± 18	**17 ± 17**	**7 ± 16**
Flavor attributes								
Sweet	1 ± 4	1 ± 6	0 ± 0	3 ± 8	**0 ± 0**	**4 ± 10**	0 ± 0	2 ± 7