

Supplementary

Table S1. Changes in quality and protein oxidation in Coregonus peled during refrigeration and super chilling storage.

Days	0	1	3	5	7	9	11	13	15
MDA (mg/kg)									
4°C	0.04±0.01 ^a	0.09±0.01 ^b	0.19±0.01 ^c	0.33±0.02 ^d	0.58±0.01 ^e	0.62±0.01 ^f	1.08±0.01 ^g	1.15±0.01 ^h	1.42±0.01 ⁱ
-3°C	0.03±0.011 ^a	0.09±0.01 ^b	0.12±0.02 ^c	0.19±0.01 ^d	0.28±0.01 ^e	0.34±0.06 ^f	0.54±0.01 ^g	0.64±0.01 ^h	1.11±0.03 ⁱ
T	ns	ns	*	**	**	*	**	**	**
pH									
4°C	6.75±0.01 ^a	6.68±0.02 ^b	6.64±0.02 ^{cd}	6.61±0.06 ^c	6.53±0.02 ^d	6.46±0.01 ^e	6.49±0.01 ^{ef}	6.39±0.01 ^f	6.28±0.05 ^g
-3°C	6.75±0.01 ^a	6.70±0.03 ^b	6.68±0.02 ^c	6.66±0.01 ^d	6.67±0.02 ^e	6.60±0.05 ^e	6.49±0.02 ^e	6.53±0.02 ^e	6.34±0.02 ^f
T	ns	ns	ns	ns	**	*	ns	**	ns
Drip loss (%)									
4°C	0.00±0.00 ^a	2.34±0.04 ^b	3.45±0.02 ^c	3.62±0.01 ^d	4.03±0.01 ^e	4.47±0.00 ^f	5.15±0.01 ^g	5.31±0.00 ^h	5.54±0.00 ⁱ
-3°C	0.00±0.00 ^a	1.62±0.00 ^b	2.48±0.01 ^c	4.44±0.00 ^d	5.00±0.01 ^e	5.33±0.00 ^f	7.40±0.01 ^g	7.45±0.00 ^h	8.29±0.00 ⁱ
T	ns	**	**	**	**	**	**	**	**
MFI									
4°C	22.50±2.10 ^a	34.80±4.80 ^b	47.50±5.80 ^c	52.00±3.10 ^d	62.50±3.50 ^e	73.60±2.10 ^f	83.30±1.50 ^g	94.10±2.10 ^h	95.50±3.40 ^h
-3°C	22.50±2.10 ^a	28.40±1.90 ^b	39.30±1.00 ^c	54.20±1.60 ^d	56.80±2.30 ^e	74.50±2.10 ^f	80.50±2.20 ^g	86.40±2.00 ^h	91.90±0.90 ⁱ
T	ns	ns	ns	ns	ns	ns	ns	*	ns
Carbonyl (nmol/mg pro)									
4°C	1.25±0.11 ^a	1.38±0.05 ^b	1.74±0.02 ^c	1.81±0.05 ^c	1.98±0.05 ^d	2.20±0.04 ^e	2.39±0.05 ^f	2.61±0.03 ^g	2.75±0.05 ^h
-3°C	1.25±0.11 ^a	1.28±0.05 ^a	1.67±0.03 ^b	1.81±0.05 ^c	1.83±0.04 ^c	1.91±0.03 ^c	2.01±0.04 ^d	2.23±0.09 ^e	2.30±0.03 ^e
T	ns	ns	*	ns	*	**	**	**	**
Solubility (%)									
4°C	89.73±2.53 ^a	88.89±1.46 ^{ab}	85.51±2.93 ^{ac}	82.98±1.46 ^{cd}	80.44±1.46 ^d	79.59±2.53 ^d	75.37±1.46 ^e	73.68±3.87 ^f	72.84±1.46 ^g

-3°C	89.73±2.53 ^a	86.35±2.93 ^{ab}	80.44±3.87 ^{bc}	81.28±1.46 ^b	74.53±2.53 ^{cd}	71.15±6.38 ^d	72.84±3.87 ^d	69.46±2.53 ^e	67.77±3.87 ^f
T	ns	ns	ns	ns	*	ns	ns	ns	ns

Note: The different letters represent a significant difference between samples by time storage ($p < 0.05$). T: significantly different as influenced by storage temperature: *($p < 0.05$); **($p < 0.01$); ns: no significant difference ($p > 0.05$).