




Functional Fibers Portfolio and Comparison		 PEKTOS AG Know-How & Experience		 PEKTOS AG Know-How & Experience		 PEKTOS AG Know-How & Experience	
v3, May 2023							
Product	APPLE FIBER	CARROT FIBER	CITRUS FIBER		SUGARBEET FIBER		
Fiber Type / Source	de-juiced apples, apple pomace	carrot pulp	citrus peels		sugarbeet pulp after sugar extraction		
Tradename	PEKTOS APPLE FIBER AF 3 C	PEKTOS CARROT FIBER KF 15 C	PEKTOS CITRUS FIBER CF 1525 A	PEKTOS CITRUS FIBER CF 1525 C	PEKTOS BEET FIBER BF 5	PEKTOS BEET FIBER BF 10	
% Dietary Fiber (average values)	> 60 %	≥ 60 %	> 70 %	> 70 %	grades: A,C,E,G,H,Flake	grades: A,C	
% insoluble	> 50 %	≥ 40 %	> 35 %	> 35 %	≥ 70 %	≥ 70 %	
% soluble	≤ 10 %	≥ 18 %	> 35 %	> 35 %	≥ 52 %	≥ 52 %	
Carbohydrates, total	< 23 %	≤ 22 %	< 11 %	< 11 %	< 18 %	< 18 %	
Carbohydrates, sugars			< 2 %	< 2 %	≤ 3.0 %	≤ 3.0 %	
Protein	< 5 %	≤ 5 %	< 7 %	< 7 %	< 2.5 %	< 2.5 %	
pH value (1% in water)	3.0 - 5.0	4.5 - 6.5	4.0 - 6.0	4.0 - 6.1	< 8 %	< 8 %	
Minerals, ash	< 3.0 %	≤ 5.0 %	< 4.0 %	< 4.0 %	4 - 6	5.0 - 6.8	
					≤ 4 %	≤ 4 %	
Functionality							
Viscosity (hot or cold)	no significant viscosity	hot & cold viscosity	hot & cold viscosity	hot & cold viscosity	low hot & cold viscosity	low hot & cold viscosity	
Water Binding Capacity WBC (g H ₂ O per g of fibre)*	3 - 4	approx 15	10 - 15	10 - 15	3.5 - 6	7 - 10	
Swelling Capacity SC (volume in ml per g of sample)**	3 - 5	30 - 40	10 - 15	10 - 15	5 - 7	5 - 7	
Oil binding capacity (g oil per g of fibre)	n/a	4	4	4	4	4	
Particle size	max. 5% > 0.150 mm	min. 70% < 0.250 mm	max 10% > 0.070 mm	max 5 % > 0.150 mm	superfine to flake	superfine & fine	
Solubility	weak	partly soluble	partly soluble	partly soluble	partly soluble	partly soluble	
Processing tolerance	stable	stable	stable	stable	stable	stable	
Gelling effect (usually shearing necessary)	weak gel >60Bx and pH <3.2	no gel	gels at >55Bx and pH <3.5	gels at >55Bx and pH <3.6	no gel	no gel	
Emulsion capacity	n/a	supporting	supporting	supporting	supporting	supporting	
Clarity/sheen/opacity in finished product	opaque, brownish	opaque, whitish	opaque, yellow tinge	opaque, yellow tinge	cloudy, turbid	cloudy, turbid	
Cold water swelling/dispersibility	yes	yes	yes	yes	yes	yes	
Film Forming properties	no	no	no	no	no	no	
Free flow agent	no	(yes)	yes	(yes)	(yes)	(yes)	
Sensory Properties							
Mouthfeel in dispersion	slight pulpiness, sandiness	pulpy, smooth	pulpy, smooth	pulpy, smooth	pulpy, slightly gritty	pulpy, slightly gritty	
Taste	fruity, typical apple	sweetish, bland	fruity, bland	fruity, bland	typical	typical	
Colour	light brown	beige - light orange	beige to off-white	beige to off-white	beige-grey	beige-grey	
Transparency (1% dispersion in water)	low, turbid, light brown	turbid	turbid	turbid	turbid	turbid	
Specification details							
Labelling, declaration	apple fiber, fruit fiber, plant fiber	carrot fiber, vegetable fiber, plant fiber	citrus fiber, fruit fiber plant fiber		sugar beet fibre, vegetable fibre		
Country of origin	Switzerland/Germany	Germany	Germany		Switzerland/Germany		
HS-Code	4706.9100	0712.9089	1302.3900		2303.2090		
Organic certification	BIO quality available	BIO quality available	no		BIO quality available		
GM status	non-GMO	non-GMO	non-GMO		non-GMO		
Allergen status	allergen free	allergen free	allergen free		allergen free		
Gluten-free	< 20 ppm	< 10 ppm	< 10 ppm		< 10 ppm		
Halal certified	not yet certified	not yet certified	not yet certified		not yet certified		
Kosher certified	yes	yes	yes		yes		
USP Grade	no	no	no		no		
Pack size	25 kg bags or boxes	12.5 kg bags	20 kg bags or boxes		A - G: 22kg H: 14kg, Flakes: 16kg bags or boxes Big Bags available on request		
Best before, months after production date	24	24	24		36		
* Method Water Binding Capacity (WBC): 0.8g sample is mixed with 9.2g water, let stand for 24h, the centrifuged at 3,000rpm for 10 min. The supernatant is weighed off, then the WBC calculated as x g of water per g of fibre.							
** Method Swelling Capacity (SC): modified method of Rosell, Santos & Collar (2009). One gram of sample is mixed with 40 ml dist. water with light agitation/panning (no mechanical shearing or stirring), then allowed to hydrate for 24 h at 25 °C ± 1 °C. The volume of the sample is recorded after 24 h. SC is expressed as ml/gram of sample.							
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