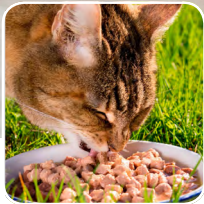


PETFOOD PRODUCT PORTFOLIO



Natural Ingredients. Smart Solutions.

sonac

DARLING
INGREDIENTS



WE DO FIRST-CLASS INGREDIENTS BUT OUR REAL DRIVE IS TO HELP YOU SUCCEED

We understand this. While producing first-class pet food ingredients is at the heart of what we do, we believe our real business is creating solutions that will prosper your business. Through our superlative service, forward-looking expertise and comprehensive product portfolio.

We offer premium quality ingredients, thanks to strict and efficient processing methods, and rigorous separation of bovine, porcine and poultry materials. Our fats, proteins and minerals are natural, safe, healthy and nutritional.

We offer ingredients with superior nutrition, techno and bio functionalities. Our techno-functional ingredients are designed to improve texture in all kinds of pet food formulas by providing advance binding and emulsifying. Our bio-functional ingredients support wellbeing of dogs and cats by smoothing symptoms of allergy, joints disorders or improving gut health.

With our ingredients and support, we deliver on the promise of helping you to make pets healthier, owners happier and business better.

Discover more at sonac.biz/whereworldsmeet

BIO-FUNCTIONAL INGREDIENTS

	Crude Protein	In vitro digestibility	Specific characteristics	Key benefits	Origin
Proglobulin*	80% / 78%	99%	homogenous spray dried plasma protein blend derived from processed blood	anti-inflammation agent; supports gut health; improves stamina; recommended in formulas for sensitive breeds and for working dogs	porcine
Hypo allergenic ingredients					
Hydro-P Premium	> 90%	99%	high purity collagen peptides produced by enzymatic hydrolysis of collagen rich tissue	provides satiety effect; promotes wound healing process; helps to maintain healthy skin, fur & nails	porcine
Globoost	90%	99%	spray dried globine protein made from carefully processed blood	protein booster	porcine
MucoPro	80%	99%	hydrolyzed porcine peptone product derived from intestinal mucosal tissue	low in ash	porcine
MPI / Innomax	90%	99%	homogenous, spray dried meat protein isolate blend obtained from processed porcine trimmings	palatability and protein booster; low biogenic amines content	porcine
Ovine Plasma Powder**	70%	98.5%	uniform spray dried plasma protein blend derived from processed blood	highly palatable; efficient binder & emulsifier; texture booster in dry & wet pet food formulas	ovine

TECHNO-FUNCTIONAL INGREDIENTS

Functional Poultry Protein	80%		homogenous blend of processed poultry trimmings	texture booster with high water binding and emulsifying properties	poultry
Gelatin	>85%	95%	protein extract obtained from an irreversible hydrolysis of collagen rich tissue	efficient binder; texture booster in extrudates and dental treats formulas	porcine
Hemoglobin / RBC powder	90-92%	99%	protein-based natural colorant derived from blood	natural, protein-based colorant, rich in hemic iron	porcine, bovine
Plasma Powder / Innomax Plasma	> 70%	99%	spray dried plasma protein made from processed blood	highly palatable; efficient binder & emulsifier; texture booster in dry & wet pet food formulas	porcine, bovine, ovine

* recommended for mild-heat treated snacks formulas and as a coating for extrudates ; high molecular weight ** spray dried, not hydrolyzed

NUTRITIONAL INGREDIENTS

Protein meals	Crude Protein	In vitro digestibility	Specific characteristics	Origin
Poultry meat meal	65%	> 87%	uniform blend of precisely processed poultry meat-products, low biogenic amines content	poultry
Poultry meat bone meal	50%	80%	homogenous powder of processed poultry by-products	poultry
Feather meal	85%	70%	hydrolyzed keratin protein derived from processed chicken and turkey feathers	poultry
KeraPro	85%	80%	highly digestible hydrolyzed keratin protein derived from carefully processed chicken and turkey feathers	poultry
Turkey meal	60%	85%	homogenous powder of processed turkey meat by-products	turkey
Blood meal	90%	90%	nutritious powder made of blood collected from certified slaughter houses	poultry, porcine or mix
Pork meal	50% / 60% / 63%	85% / 90% / 90%	homogenous powder of processed porcine meat by-products	porcine
Gelko	68%	99%	hydrolyzed porcine protein obtained by processing porcine bones	porcine
Greaves meal	85%	> 90%	nutritious and palatable powder derived from food-grade adipose tissue	porcine, bovine or porcine and bovine mix
Meat meal	50%	87%	uniform powder of processed meat by-products; highly palatable source of protein & energy	porcine and bovine mix
Beef meal	55%	85%	homogenous powder made of meat by-products	bovine

Fats	Max FFA	Max peroxide (meq/kg)	Specific characteristics	Origin
Poultry fat	1%/5%/10%	6	chicken and turkey fat	poultry
Pork fat	1%/2%/5%	3/6	porcine fat	porcine
Lard	1% / 2%	3/6	porcine fat	porcine
Tallow	1% / 2%	3/6	bovine fat	bovine

Minerals	Crude Protein	Ca / P	Specific characteristics	Origin
Delfos	-	23% / 17%	dicalcium phosphate	bovine
Calfos	10%	32% / 14%	tricalcium phosphate , hydroxyapatite	porcine

Meat-by-products (CTH)*	State of delivery specific	Origin
Poultry	fresh or stock frozen	poultry
Pork	fresh or stock frozen	porcine
Beef	fresh or stock frozen	bovine
Veal	frozen or stock frozen	bovine
Ovine	fresh	ovine

* Fresh or stock frozen meat-by products for example organs, MDM etcetera per origin or mixed. On request CTH can also offer blends.