

**CARBELAC 80**

**TECHNICAL SPECIFICATION**

**Product Description** Carbelac 80 Whey Protein Concentrate (WPC) is a food grade powder containing high quality whey protein. It is manufactured from dairy whey using ultrafiltration and spray drying technology.

**Ingredient Listing** Whey Protein Concentrate

**Customer** Deimos

Chemical	Specification	Typical	Test Method
Protein (N*6.38) (% dry basis)	80.0 Min	80.0	Kjeldahl
Total Nitrogen (TN) (%)	12.4 Min	12.5	Kjeldahl
Moisture (%)	6.00 Max	5.00	Oven
Fat (%)	9.00 Max	8.00	NIR
Ash (%)	4.00 Max	3.50	Furnace 550°C
Lactose (%)	10.0 Max	5.00	Calculated
pH	6.00 Min	6.30	10% Aq Soln

**Microbiological**

Standard Plate Count (SPC)	<50,000 / g	<10,000 / g	ISO 4833:2003
Coliforms	<10 / g	<10 / g	IDF73B:1998
E.coli	<10 / g	<10 / g	US-EPA approved method Federal Register / Vol. 67, No. 209. Journal of Food Protection 51:402-404
Staph. aureus	<10 / g	<10 / g	IDF145A:1997
Salmonella	Neg / 25.0g	Neg / 25.0g	ISO6579:2002
Yeast & Moulds	<50 / g	<10 / g	ISO 6611:2004

**Physical**

Scorched particles	Disc B or better	Disc A	ADPI Bulletin 916
Bulk Density	0.40 ± 0.10 g/cc	0.40 g/cc	IDF134:1996
Appearance		Homogenous, free-flowing powder	Visual
Colour		Creamy white	Visual
Organoleptic		Typical, free from off-flavour	Taste

**Mineral Profile**

Calcium (mg/100g)		500	Atomic Spectroscopy
Sodium (mg/100g)		180	Atomic Spectroscopy
Potassium (mg/100g)		600	Atomic Spectroscopy
Magnesium (mg/100g)		50	Atomic Spectroscopy
Phosphorous (mg/100g)		400	Atomic Spectroscopy
Chloride (mg/100g)		120	Titration

## Typical Nutritional Information

Amino Acid Profile	(g per 100g Powder)	(g per 100g Protein)
Leucine	9.35	11.54
Isoleucine	5.03	6.22
Valine	5.09	6.28
<i>Total Branched Chain Amino Acids</i>	<i>19.475</i>	<i>24.04</i>
Aspartic Acid	9.51	11.73
Glutamic Acid	15.22	18.78
Serine	4.72	5.83
Glycine	1.66	2.05
Histidine	1.61	1.99
Arginine	2.39	2.95
Threonine	6.44	7.95
Alanine	4.26	5.26
Proline	5.04	6.22
Tyrosine	2.70	3.33
Methionine	1.61	1.99
Cystine	2.13	2.63
Phenylalanine	2.85	3.53
Lysine	8.10	10.00
Tryptophan	1.24	1.54

## Protein Utilisation\*

PER	3.5
BV	104
PDCAAS	0.97
* As per scientific literature	

## Fatty Acid Profile

Saturates (%)	5.87
Mono-unsaturates (%)	2.13
Polysaturates (%)	<0.01
Cholesterol (mg/100g)	160

## Carbohydrates

Lactose (%)	5.00
Glucose (%)	<0.10
Sucrose (%)	<0.10

Energy	410 KCal / 1730 KJ
Fibre	Nil

## Diet Suitability

This product is suitable for individuals with the following dietary requirements: Kosher, Halal, Vegetarian, Ovo-Lacto Vegetarian, Coeliacs, Diabetics, GMO Free, Nut/Seed free.

## Storage

Store under clean, cool, dry conditions not exposed to direct sunlight or strong odours and avoiding direct contact with walls and floors. Recommended shelf life is 36 months

## Packaging

Packed in 20kg multiwall papersacks with polythene liners. Each sack will be heat sealed. The product will be palletised and shrink wrapped.

## Labelling

The following will be printed in large blue writing on white sacks. "Carbelac", Manufactured by Carbery Food Ingredients and processor EU number.

## Coding

Each sack will be individually coded by an automatic ink jet system to ensure traceability