

Title	PROCESS FOR OBTAINING OF DIETARY FIBER FROM FLAXSEED POMACE
Authors	Baerle Alexei, Tatarov Pavel, Sandu Iuliana, Sturza Rodica, Macari Artur
Institution	Technical University of Moldova
Patent no.	Application S 2020 0117 , Decision 9703 from 2021.01.22

Description
EN

Flaxseed pomace, resulting by cold pressing of oil, contains significant amounts of biologically active dietary fibers. The main macromolecular compounds from Flaxseed form two fractions: the water-soluble polysaccharides fraction, containing *arabinoxylan* and *arabinogalactan*, and the fraction of insoluble fibers, which contains cellulose, lignin, proteins. Soluble dietary fibers from Flaxseed are indigestible prebiotic ingredients, which stimulate the development of bacteria, responsible for hydrolysis and the formation of lactulose, sucrose, raffinose, etc. in the colon. At the same time, insoluble dietary fibers show excellent adsorption capacity of heavy metal cations, toxic metabolites resulting from bad gastrointestinal flora, and contribute to their elimination from the human body. Dietary fiber from Flaxseeds is of interest to the food industry and can be used as stabilizers, harmless agents for thickening the food texture, and are necessary for obtaining functional and dietary foods. They are a good alternative to food grade guar and xanthan gums, which are too many in modern nutrition.

According to the Process, the dietary fibers from Flaxseed pomace are extracted by degreasing of the flaxseed pomace, wetting the defatted pomace with a mixture of ethanol and water, extracting of water-soluble polysaccharides from the defatted pomace using hot demineralized water. Then follows separating the fiber fraction by pressing, dehydration and transformation of the dissolved pentosan fibers fraction into solid fibers, using

EUROINVENT 2021

concentration or lyophilization. The results of the invention are insoluble dietary fibers in solid form and the composition of water-soluble polysaccharides (arabinoxylan and arabinogalactan) in solid form.

Class no.

3