



TECHNICAL APPLICATION
INFORMATION



**H&F Pectins in Egg-free Creams
for the Production of Flummeries,
Flans and Brûlées**

H&F PECTINS IN EGG-FREE CREAMS FOR THE PRODUCTION OF FLUMMERIES, FLANS AND BRÛLÉES

Today, products such as Panna Cotta, Confiture de Lait as well as most different flan products are well-established desserts, especially in the sophisticated gastronomy. Due to their valuable calcium and milk protein content these products support and complete the health-conscious nutrition of modern consumers.

Traditionally milk desserts like Panna Cotta are produced in often complex and mostly manual processes.

Panna Cotta (“boiled cream”) is originated in Italy and is a dessert consisting of cream resp. a mix of cream and milk, sweetened with sugar and mostly flavoured with vanilla. Usually hydrocolloids are used for gelation.



For the production of Confiture de Lait or as well Dulce de Leche, a specialty from France resp. Latin America, milk and sugar are mixed in a defined ratio and boiled for several hours until the sugar starts to caramelize. Pursuant to a legend this “milk jam” was discovered by chance: In the age of Napoleon the soldiers received every day a cup of hot milk with sugar as part of their food. Someday, a cook was distracted by a sudden offense of hostile troops and forgot to take the kettle containing this mixture from the fireplace so that the milk boiled down for several hours. The resulting caramel cream shaped up as very enjoyable, as a spread for bread, with waffles, crêpes, fruits, yoghurt or warm with vanilla ice.

For preparing the popular flan desserts a sugared egg-milk, usually flavoured with most fine vanilla or fresh espresso, is heated in a waterbath in the oven until the egg proteins start to coagulate.

The long boiling, holding and setting times of the traditional production process lead to unsteady qualities and result in extensive production costs, too.

Compared with jams and fruit preparations, milk desserts usually have a comparatively high pH-value of approx. 5.5 to 6.5. Pectins are preferably applied in fruit-based applications with pH-values beneath 4.0. With that, the selection of the suitable pectins is very important in order to guarantee set products with low tendency to syneresis and also to assure economically reasonable dosages.

With the use of specially selected amidated pectins it is possible to produce set milk products with a wide soluble solids range distinguishing themselves by an energy-saving production and very short production times with excellent texture properties and low tendency to syneresis at the same time.

Especially for this application H&F offers the Pectins Amid CF 010 and Amid CF 005-B. For set milk desserts with very low soluble solids ranges Pectin Amid CF 025 proved to be suitable.

H&F-Pectins allow the production of different milk-based dessert products in an excellent quality and with a high reliability of the production process. The use of H&F-Pectins additionally enables the producers of traditional milk products to produce cost-effective and, moreover, to develop novel, innovative products.



Herbstreith & Fox KG		Recipe
<i>Milk Dessert „Panna Cotta”</i>		
Pectin Amid CF 010		
160g	Pectin solution 5% (= 0.8%)	Manufacture A Production of a 5% pectin solution, see “Technical Application Information”. B Mix milk, cream, sucrose and water and boil out to 840g. C Add hot pectin solution. D Filling at approx. 95°C.
340g	Milk, 3.5% fat	
400g	Cream, 30% fat	
150g	Sucrose, crystalline	
Input:	1050g	
Output:	1000g	
TSS:	30%	
pH-value:	5.5 – 6.5	

Herbstreith & Fox KG		Recipe
<i>Milk Spread 55 °Brix</i>		
Pectin Amid CF 010		
160g	Pectin solution 5% (= 0.8%)	Manufacture A Production of a 5% pectin solution, see “Technical Application Information”. B Mix milk, cream, sucrose and boil out to 840g. C Add hot pectin solution. D Filling at approx. 95°C.
400g	Milk, 3.5% fat	
500g	Sucrose, crystalline	
Input:	1060g	
Output:	1000g	
TSS:	55%	
pH-value:	5.5 – 6.5	

Herbstreith & Fox KG		Recipe
<i>Milk Spread 8°Brix</i>		
Pectin Amid CF 025-D		
200g	Pectin solution 5% (= 1.0%)	Manufacture A Production of a 5% pectin solution, see “Technical Application Information”. B Mix milk and water and boil out to 800g. C Add hot pectin solution. D Filling at approx. 95°C.
400g	Milk, 3.5% fat	
500g	Water	
Input:	1100g	
Output:	1000g	
TSS:	8%	
pH-value:	5.5 – 6.5	

Herbstreith & Fox KG		Recipe
<i>Confiture de Lait</i>		
Pectin Amid CF 005-B		
100g	Pectin solution 5% (= 0.5%)	Manufacture A Production of a 5% pectin solution, see "Technical Application Information". B Mix condensed milk, sugared, sucrose, glucose syrup and water. Heat the mix and boil out to 900g. C Add hot pectin solution. D Filling at approx. 95°C.
235g	Sucrose, crystalline	
300g	Glucose syrup	
350g	Condensed milk, sugared, 70% TSS	
50g	Water	
Input:	1035g	
Output:	1000g	
TSS:	73 – 74 %	
pH-Wert:	5.8 – 6.0	

TECHNICAL APPLICATION LABORATORY
 HERBSTREITH & FOX CORPORATE GROUP
 15/09/2009