

DEV 1485: Vinifera For Life Final Report

## 5 Product Development

### 5.1 Frozen & Par-Baked Loaf and Baguette

Par-baked products are becoming prevalent as a means to provide fresh bakery products in grocery chains without employing staff trained specifically in baking. These products are fully prepared and then baked to approximately 70% of a full bake. The final short browning bake is then conducted in store, giving a freshly baked appearance, aroma and texture to the product.

A par-baked, frozen bread formulation was developed at GFTC for use by Vinifera For Life to showcase their grape skin as an ingredient. The final formulation is included in Table 5 below.

**Table 5: Frozen and Par-Baked Formulation**

	Bakers	%	%
Wheat Flour	90		52.94%
Vinifera For Life – Flour	10		5.88%
Water	62		36.47%
Yeast	2.6		1.53%
Salt	2		1.18%
Oil	2		1.18%
Ascorbic Acid * *			
Vital wheat gluten 80%	1.4		0.82%

*\* ascorbic acid is added at a level of 120 mg/kg, below the 200 ppm regulated level. This is calculated as  $0.120 \times (\text{total mass of formulation in kg})$  in grams.*

*Ascorbic acid is added as a dough conditioner. This improves the functionality of the flour and improves loaf volume. It is also recommended for frozen bread products.*

*Ascorbic acid is an oxidizing agent. It creates bonds between the proteins during the late stages of proofing and early stages of baking.*

*Vital gluten is added at a level to compensate for gluten missing from the addition of Vinifera For Life. Since 10% of the flour has been removed, and gluten represents approximately 14% of typical bread flour, this amount of gluten was added back to the dough, to improve dough strength and development. Gluten is vital to the formation of dough and provides structure to the bread loaf.*

*To determine the baking time for the par-baked loaf, baking times of 30, 35, 40 and 45 minutes were used. The bread was baked at 205 °C (400 °F), cooled and frozen. The frozen loaves were baked at 190 °C (375 °F) for 10 minutes one week later. The bread exhibited good cell structure, crust formation and flavour. The most preferred baking time was determined to be 35 minutes based on the crust formation and appearance of the loaf. A picture of the bread is included in Figure 1.*

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