#9 Bitter

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **37**
- SRM **9.2**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **70 C**, Time **75 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **75 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	4.5 kg *(90%)*	81 %	6
Grain	Cara Crystal Castle Malting	0.5 kg *(10%)*	73 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	60 min	7 %
Boil	Challenger	30 g	30 min	7 %
Aroma (end of boil)	Fusion UK	15 g	15 min	4.57 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Windsor Ale	Ale	Dry	11.5 g	Danstar

Extras

Type	Name	Amount	Use for	Time
Fining	Whirflock	0.5 g	Boil	15 min

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.