

93 NUT

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **16**
- SRM **10.5**
- Style **American Brown Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **11.9 liter(s)**
- Total mash volume **17.8 liter(s)**

Steps

- Temp **69 C**, Time **45 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **11.9 liter(s)** of strike water to **81.2C**
- Add grains
- Keep mash **45 min** at **69C**
- Keep mash **5 min** at **77C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	3.9 kg (65.8%)	81 %	6
Grain	Biscuit Malt	1.3 kg (21.9%)	79 %	45
Grain	Oats, Flaked	0.5 kg (8.4%)	80 %	2
Grain	Brown Malt (British Chocolate)	0.23 kg (3.9%)	70 %	128

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northern Brewer	21 g	90 min	7 %
Mash	Northdown	14 g	20 min	6.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP002 - English Ale Yeast	Ale	Liquid	10 ml	White Labs