

Licence to chill

- Gravity **22 BLG**
- ABV **9.9 %**
- IBU **28**
- SRM **17.7**
- Style **Strong Scotch Ale**

Batch size

- Expected quantity of finished beer **9.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **13.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.4 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **14.1 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **10 liter(s)** of strike water to **76.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **7.3 liter(s)** of **76C** water or to achieve **13.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3 kg (72.3%)	80 %	8
Grain	Casle Malting Whisky Nature	1 kg (24.1%)	85 %	4
Grain	Carafa	0.15 kg (3.6%)	70 %	664

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	East Kent Goldings	30 g	80 min	5.1 %
Aroma (end of boil)	East Kent Goldings	20 g	1 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Windsor Ale	Ale	Dry	11 g	Danstar