

80'

- Gravity **11.7 BLG**
- ABV ---
- IBU **16**
- SRM **12.9**
- Style **Scottish Export 80/-**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

### Steps

- Temp **70 C**, Time **90 min**

### Mash step by step

- Heat up **16 liter(s)** of strike water to **78.4C**
- Add grains
- Keep mash **90 min** at **70C**
- Sparge using **21 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.31 kg (80.6%)	80 %	7
Grain	Caramel/Crystal Malt - 40L	0.45 kg (8.4%)	74 %	79
Grain	Briess - Munich Malt 10L	0.227 kg (4.2%)	77 %	20
Grain	Honey Malt	0.227 kg (4.2%)	80 %	49
Grain	Caramel/Crystal Malt - 120L	0.113 kg (2.1%)	72 %	236
Grain	Fawcett - Pale Chocolate	0.02 kg (0.4%)	71 %	600

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	32 g	60 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	safale