

Scottish Ale

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **22**
- SRM **21.9**
- Style **Scottish Export 80/-**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **27.5 liter(s)**

Steps

- Temp **69 C**, Time **80 min**

Mash step by step

- Heat up **22.9 liter(s)** of strike water to **73.9C**
- Add grains
- Keep mash **80 min** at **69C**
- Sparge using **5.5 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale GOLDEN PROMISE	3.5 kg (76.4%)	80 %	4
Grain	Crystal 150	0.7 kg (15.3%)	78 %	236
Grain	Brown Malt (British Chocolate)	0.25 kg (5.5%)	72 %	128
Grain	Chocolate Malt (UK)	0.13 kg (2.8%)	75 %	887

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	37 g	60 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	1200 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Fining	Łuska ryżowa	50 g	Mash	80 min