Scottish Export

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **22**
- SRM **15.7**
- 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 **120 min**
- Evaporation rate **8 %/h**
- Boil size **33.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **31.3 liter(s)**

Steps

- Temp **66 C**, Time **20 min**
- Temp **67 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **24 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **20 min** at **66C**
- Keep mash **30 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **33.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	7 kg *(96.3%)*	83 %	6
Grain	Carafa II	0.2 kg *(2.8%)*	70 %	812
Grain	Jęczmień palony	0.07 kg *(1%)*	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	60 min	8 %
Boil	Saaz	20 g	10 min	3.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's - Empire Ale M15	Ale	Dry	10 g	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Flavor	Płatki dębowe	30 g	Secondary	14 day(s)

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