SCOTCHARD

- Gravity **24.2 BLG**
- ABV **11.2 %**
- IBU **22**
- SRM **17.9**
- Style **Strong Scotch Ale**

Batch size

- Expected quantity of finished beer **230 liter(s)**
- Trub loss **3 %**
- Size with trub loss **236.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **290.2 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **282 liter(s)**
- Total mash volume **376 liter(s)**

Steps

- Temp **63 C**, Time **10 min**
- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **282 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **10 min** at **63C**
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **102.2 liter(s)** of **76C** water or to achieve **290.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner (2 Row) Ger	80 kg *(85.1%)*	81 %	4
Grain	Monachijski	8 kg *(8.5%)*	80 %	25
Grain	Strzegom 400	5 kg *(5.3%)*	70 %	299
Grain	Barwiący	1 kg *(1.1%)*	55 %	950

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	400 g	60 min	7.5 %
Whirlpool	Challenger	850 g	5 min	7.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 1728 Scottish Ale	Ale	Liquid	2000 ml	Wyeast Labs