

SCOTCHARD

- Gravity **24.2 BLG**
- ABV **11.2 %**
- IBU **22**
- SRM **17**
- 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 | 83 kg (88.3%) | 81 % | 4 |
| Grain | Monachijski | 5 kg (5.3%) | 80 % | 25 |
| Grain | Strzegom 400 | 5.5 kg (5.9%) | 70 % | 299 |
| Grain | Barwiący | 0.5 kg (0.5%) | 55 % | 1300 |

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 |