

## 90 SHILLING SCOTCH ALE

- Gravity **18.2 BLG**
- ABV ---
- IBU **20**
- SRM **11.9**
- Style **Strong Scotch Ale**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **0 %**
- Size with trub loss **19 liter(s)**
- Boil time **120 min**
- Evaporation rate **5 %/h**
- Boil size **20.9 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **28.3 liter(s)**

### Steps

- Temp **67 C**, Time **75 min**

### Mash step by step

- Heat up **21.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **20.9 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount       | Yield | EBC  |
|-------|----------------------|--------------|-------|------|
| Grain | Viking Pale Ale malt | 7 kg (99%)   | 80 %  | 5    |
| Grain | Jęczmień palony      | 0.07 kg (1%) | 55 %  | 1150 |

### Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | iunga | 15 g   | 50 min | 12.9 %     |

### Yeasts

| Name  | Type | Form  | Amount | Laboratory |
|-------|------|-------|--------|------------|
| us-05 | Ale  | Slant | 200 ml | ---        |

### Extras

| Type   | Name   | Amount | Use for   | Time      |
|--------|--------|--------|-----------|-----------|
| Flavor | płatki | 100 g  | Secondary | 30 day(s) |

### Notes

- 4 litry brzeczki przedniej gotujemy osobno i intensywnie przez 30 min w celu karmelizacji  
*Feb 17, 2017, 1:07 PM*