

ALE

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **33**
- SRM **5.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **10.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **13.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

Steps

- Temp **63 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **15 min** at **63C**
- Keep mash **45 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **6.4 liter(s)** of **76C** water or to achieve **13.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 1.6 kg (53.3%) | 90 % | 5 |
| Grain | Strzegom Monachijski typ II | 0.4 kg (13.3%) | 79 % | 22 |
| Grain | Strzegom Wiedeński | 0.4 kg (13.3%) | 79 % | 10 |
| Grain | Płatki owsiane | 0.3 kg (10%) | 60 % | 3 |
| Grain | Jęczmień niesłodowany | 0.3 kg (10%) | 75 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil | East Kent Goldings | 12 g | 60 min | 5.1 % |
| Boil | Fuggles | 12 g | 60 min | 4.5 % |
| Aroma (end of boil) | East Kent Goldings | 30 g | 5 min | 5.1 % |
| Aroma (end of boil) | Fuggles | 30 g | 5 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-------------------------------|-----|-------|--------|-------------|
| Wyeast - 1056 American Ale | Ale | Slant | 120 ml | Wyeast Labs |
|-------------------------------|-----|-------|--------|-------------|