

## Zwykłe na koniec roku

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **25**
- SRM **3.6**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **17.5 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount     | Yield | EBC |
|-------|----------------------|------------|-------|-----|
| Grain | Viking Pale Ale malt | 4 kg (80%) | 80 %  | 5   |
| Grain | Maris Otter Crisp    | 1 kg (20%) | 83 %  | 6   |

### Hops

| Use for             | Name      | Amount | Time   | Alpha acid |
|---------------------|-----------|--------|--------|------------|
| Boil                | Książęcy  | 30 g   | 40 min | 7.2 %      |
| Aroma (end of boil) | El Dorado | 30 g   | 5 min  | 11.6 %     |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
| k97  | Ale  | Dry  | 22 g   | Fermentis  |

### Notes

- Dwie paczki drożdzy.  
*Dec 29, 2023, 12:07 PM*