

# Graff

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **9**
- SRM **7**
- Style **Oktoberfest/Märzen**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **12.6 liter(s)**

## Steps

- Temp **69 C**, Time **70 min**

## Mash step by step

- Heat up **9.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **69C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

## Fermentables

| Type        | Name                       | Amount          | Yield | EBC |
|-------------|----------------------------|-----------------|-------|-----|
| Grain       | Viking Pale Ale malt       | 1.75 kg (49.9%) | 80 %  | 5   |
| Grain       | Strzegom Wiedeński         | 0.26 kg (7.4%)  | 79 %  | 10  |
| Grain       | Abbey Castle               | 0.07 kg (2%)    | 80 %  | 45  |
| Grain       | Monachijski                | 0.73 kg (20.8%) | 80 %  | 16  |
| Dry Extract | WES ekstrakt słodowy jasny | 0.29 kg (8.3%)  | 80 %  | 45  |
| Adjunct     | Pszenica niesłodowana      | 0.41 kg (11.7%) | 75 %  | 3   |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | Perle | 10 g   | 60 min | 5.9 %      |

## Yeasts

| Name       | Type | Form  | Amount | Laboratory |
|------------|------|-------|--------|------------|
| Kveik Oslo | Ale  | Slant | 250 ml | ---        |

## Notes

- Warzenie 01.02.2023  
Gęstość początkowa ok. 15BLG. Sok również 15BLG.  
Zmieszano po 12.5l soku i brzezki.

Drożdże zadane w temp. 15°.  
*Feb 1, 2023, 1:11 PM*