

## 1 na 100

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **31**
- SRM **4.2**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **49.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **24.8 liter(s)**

### Steps

- Temp **69 C**, Time **60 min**

### Mash step by step

- Heat up **18.6 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **36.9 liter(s)** of **76C** water or to achieve **49.3 liter(s)** of wort

### Fermentables

| Type  | Name                    | Amount        | Yield | EBC |
|-------|-------------------------|---------------|-------|-----|
| Grain | Żytni                   | 5 kg (80.6%)  | 85 %  | 8   |
| Grain | Strzegom<br>Bursztynowy | 0.2 kg (3.2%) | 70 %  | 49  |
| Grain | Viking Pale Ale malt    | 1 kg (16.1%)  | 80 %  | 5   |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Mandarina Bavaria | 60 g   | 10 min | 10 %       |
| Aroma (end of boil) | Cascade           | 75 g   | 1 min  | 7.1 %      |
| Boil                | Chinook           | 50 g   | 10 min | 13 %       |

### Yeasts

| Name | Type | Form  | Amount | Laboratory |
|------|------|-------|--------|------------|
| S33  | Ale  | Slant | 200 ml | ---        |