

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 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 | --- |