

# Gorzkie owoce

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **52**
- SRM **3.9**
- Style **Saison**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **75 C**, Time **5 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount     | Yield | EBC |
|-------|----------------------|------------|-------|-----|
| Grain | Pszeniczny           | 1 kg (20%) | 85 %  | 4   |
| Grain | Viking Pale Ale malt | 2 kg (40%) | 80 %  | 5   |
| Grain | Pilzneński           | 2 kg (40%) | 81 %  | 4   |

## Hops

| Use for             | Name             | Amount | Time     | Alpha acid |
|---------------------|------------------|--------|----------|------------|
| Boil                | Rakau (NZ)       | 15 g   | 60 min   | 10.5 %     |
| Boil                | Styrian Wolf     | 20 g   | 60 min   | 11.6 %     |
| Aroma (end of boil) | Styrian Cardinal | 30 g   | 10 min   | 8.2 %      |
| Dry Hop             | Styrian Wolf     | 30 g   | 2 day(s) | 11.6 %     |

## Yeasts

| Name          | Type | Form | Amount | Laboratory |
|---------------|------|------|--------|------------|
| safale be-134 | Ale  | Dry  | 11.4 g | ---        |