

# BirthdayGirl1

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **13**
- SRM **4.7**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **21.1 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

## Steps

- Temp **44 C**, Time **60 min**
- Temp **69 C**, Time **80 min**
- Temp **77 C**, Time **0 min**

## Mash step by step

- Heat up **9 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **60 min** at **44C**
- Keep mash **80 min** at **69C**
- Keep mash **0 min** at **77C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **21.1 liter(s)** of wort

## Fermentables

| Type    | Name                        | Amount         | Yield | EBC |
|---------|-----------------------------|----------------|-------|-----|
| Grain   | Abbey Malt Weyermann        | 0.25 kg (7.6%) | 75 %  | 45  |
| Grain   | Słód Owsiany Castle Malting | 0.25 kg (7.6%) | 75 %  | 3   |
| Grain   | Weyermann - Pilsner Malt    | 1 kg (30.3%)   | 81 %  | 5   |
| Grain   | Weyermann - Pale Wheat Malt | 1.5 kg (45.5%) | 85 %  | 5   |
| Adjunct | Płatki owsiane              | 0.3 kg (9.1%)  | 85 %  | 3   |

## Hops

| Use for             | Name            | Amount | Time   | Alpha acid |
|---------------------|-----------------|--------|--------|------------|
| Boil                | Motueka         | 10 g   | 20 min | 6.6 %      |
| Boil                | Motueka         | 10 g   | 10 min | 6.6 %      |
| Boil                | Trawa cytrynowa | 10 g   | 5 min  | 1 %        |
| Aroma (end of boil) | Motueka         | 20 g   | 5 min  | 6.6 %      |
| Whirlpool           | Motueka         | 30 g   | 0 min  | 6.6 %      |

## Yeasts

| <b>Name</b>                        | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|------------------------------------|-------------|-------------|---------------|-------------------|
| Gozdawa Classic<br>Belgian Witbier | Wheat       | Dry         | 10 g          | Gozdawa           |