BirthdayHop

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **24**
- 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 **70 min**
- Temp **77 C**, Time **10 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 **70 min** at **69C**
- Keep mash **10 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	20 g	20 min	6.6 %
Boil	Motueka	15 g	10 min	6.6 %
Boil	Trawa cytrynowa	10 g	5 min	1 %
Aroma (end of boil)	Motueka	30 g	6 min	6.6 %

Yeasts

Name	Type	Form	Amount	Laboratory

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Gozdawa Classic Belgian Witbier	Wheat	Dry	10 g	Gozdawa