Witbier dla Magdaleny

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **13**
- SRM **2.8**
- Style **Witbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

Steps

- Temp **52 C**, Time **20 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **8.7 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **60 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Heidelberg	2 kg *(45.5%)*	80.5 %	2.5
Adjunct	Pszenica niesłodowana	1.5 kg *(34.1%)*	75 %	3
Grain	Pszeniczny	0.5 kg *(11.4%)*	85 %	4
Grain	Płatki owsiane	0.2 kg *(4.5%)*	85 %	3
Grain	Płatki pszeniczne	0.2 kg *(4.5%)*	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast 3944 Belgian Witbier	Ale	Liquid	125 ml	Wyeast

Extras

Type	Name	Amount	Use for	Time
Spice	Kolendra	15 g	Boil	1 min
Spice	Curacao	15 g	Boil	1 min
Spice	Rumianek	15 g	Boil	1 min

Notes

- Pszenice i płatki kleikować w 6 L wody
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