

Witbier z kardamonem

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **16**
- SRM **4.1**
- Style **Witbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **55 C**, Time **20 min**
- Temp **64 C**, Time **80 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **61.3C**
- Add grains
- Keep mash **20 min** at **55C**
- Keep mash **80 min** at **64C**
- Keep mash **5 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (33.3%)	80 %	4
Grain	Strzegom Pszeniczny	1 kg (16.7%)	81 %	6
Grain	Płatki pszeniczne	2 kg (33.3%)	60 %	3
Grain	Płatki owsiane	0.5 kg (8.3%)	60 %	3
Grain	Słód Diastatic Castle Malting	0.5 kg (8.3%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	28 g	60 min	4.38 %
Boil	Saaz (Czech Republic)	15 g	15 min	4.38 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM23 Magiczny ogród	Wheat	Liquid	30 ml	Fermentum Mobile

Extras

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

Type	Name	Amount	Use for	Time
Flavor	curacao	20 g	Boil	8 min
Flavor	skórki suszone słodkiej pomarańczy	20 g	Boil	8 min
Spice	kolendra	10 g	Boil	8 min
Spice	kardamon	10 g	Boil	8 min
Fining	mech irlandzki	5 g	Boil	12 min
Other	łuska ryżowa	200 g	Mash	---
Other	vitamina c	4 g	Bottling	---

Notes

- Na wszelki wypadek przetrzymać płatki pszenne i owsiane w 10l w temp. ok. 66-70st.C przed procesem zacierania.

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