

Smoky idea

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **22**
- SRM **3.4**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **28 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **7 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **38 C**, Time **20 min**
- Temp **51 C**, Time **20 min**
- Temp **66 C**, Time **20 min**
- Temp **70 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **24.5 liter(s)** of strike water to **39.3C**
- Add grains
- Keep mash **20 min** at **38C**
- Keep mash **20 min** at **51C**
- Keep mash **20 min** at **66C**
- Keep mash **60 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **28 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3.5 kg (100%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	15 g	60 min	7.1 %
Boil	Oktawia	15 g	15 min	7.1 %
Boil	Oktawia	15 g	5 min	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa hybrid Ale	Ale	Dry	11 g	Gozdawa

Extras

Type	Name	Amount	Use for	Time
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Fining	whirlfloc	3 g	Boil	15 min
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