

No idea 2019

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

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **29.5 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **7 liter(s) / kg**
- Mash size **26.6 liter(s)**
- Total mash volume **30.4 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 **26.6 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 **6.7 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3.8 kg (100%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	10 g	30 min	7 %
Boil	Sybilla	15 g	30 min	7 %
Boil	Sybilla	15 g	15 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	80 ml	Danstar

Extras

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