

GroNeo

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **12**
- SRM **2.4**
- Style **Grodziskie**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **55 C**, Time **25 min**
- Temp **69 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **25 min** at **55C**
- Keep mash **45 min** at **69C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **39.6 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszoniczny	5 kg (90.9%)	95 %	4
Grain	Grodziski pszoniczny wędzony dębem	0.5 kg (9.1%)	80 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Talus	10 g	55 min	6.7 %
Boil	Książęcy	20 g	55 min	6.5 %
Whirlpool	Talus	20 g	0 min	6.7 %
Whirlpool	Książęcy	60 g	0 min	6.5 %
Dry Hop	Talus	30 g	2 day(s)	6.7 %
Dry Hop	Książęcy	100 g	2 day(s)	6.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale K-97	Ale	Dry	23 g	Fermentis