

## Grodziskie 3 raz

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **30**
- SRM **2.6**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **15.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.4 liter(s)**
- Total mash volume **8.6 liter(s)**

### Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **6.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **40 min** at **72C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	2 kg (93%)	80 %	3
Grain	Whisky Light 20 ppm	0.15 kg (7%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	15 g	60 min	7.1 %
Boil	Lublin (Lubelski)	15 g	20 min	4 %
Dry Hop	Lublin (Lubelski)	30 g	4 day(s)	4 %
Dry Hop	Simcoe	30 g	4 day(s)	13.2 %
Dry Hop	Herbata wędzona	20 g	7 day(s)	12.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Liquid	15 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Other	Herbata Rosyjska	15 g	Boil	10 min
-------	------------------	------	------	--------

## Notes

- Herbata dodana podczas chłodzenia (10min).  
*May 13, 2018, 11:48 AM*