

## #57 Ciemne Grodziskie

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **38**
- SRM **18.3**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **13.2 liter(s)**

### Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **9.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	2 kg (60.6%)	80 %	3
Grain	Strzegom Pszeniczny	0.5 kg (15.2%)	81 %	6
Grain	Carafa	0.4 kg (12.1%)	70 %	664
Grain	Płatki owsiane	0.4 kg (12.1%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	50 g	15 min	12 %
Aroma (end of boil)	Citra	50 g	0 min	12 %
Dry Hop	Citra	100 g	5 day(s)	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Liquid	30 ml	Fermentum Mobile