

## #43 Grodziskie

- Gravity **7.6 BLG**
- ABV ---
- IBU **21**
- SRM **2.6**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26 liter(s)**

### Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

### Steps

- Temp **63 C**, Time **35 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **35 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Wędzony bestmalz	1.3 kg (43.3%)	77 %	5
Grain	Pszeniczny	0.8 kg (26.7%)	85 %	4
Grain	Grodziski jęczmienny wędzony dębem	0.5 kg (16.7%)	80 %	3
Grain	Pilzneński	0.4 kg (13.3%)	81 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lomik	30 g	60 min	3.8 %
Aroma (end of boil)	Lomik	20 g	20 min	3.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Z piwa z Grodziska	Ale	Liquid	700 ml	---