

## #21 Grodziskie Mocne

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- Gravity **10 BLG**
- ABV ---
- IBU **26**
- SRM **3.7**
- Style **Grodziskie**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **66 C**, Time **90 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **22.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Grodziski	3 kg (66.7%)	80 %	4
Grain	Weyermann - Pilsner Malt	1.5 kg (33.3%)	81 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	40 g	60 min	4 %
Boil	Lublin (Lubelski)	30 g	20 min	4 %
Boil	Lublin (Lubelski)	20 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	90 ml	Fermentum Mobile