

## # 64 grodzisz na medal

- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **29**
- SRM **2.7**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **27.5 liter(s)**

### Steps

- Temp **38 C**, Time **30 min**
- Temp **52 C**, Time **45 min**
- Temp **63 C**, Time **20 min**
- Temp **70 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **22.5 liter(s)** of strike water to **40C**
- Add grains
- Keep mash **30 min** at **38C**
- Keep mash **45 min** at **52C**
- Keep mash **20 min** at **63C**
- Keep mash **20 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	4 kg (80%)	80 %	3
Grain	Strzegom Pilzneński	1 kg (20%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Lublin (Lubelski)	20 g	60 min	4.3 %
Boil	Lublin (Lubelski)	30 g	60 min	4.3 %
Aroma (end of boil)	Tomyski	30 g	10 min	4.9 %
Aroma (end of boil)	Tomyski	35 g	5 min	4.9 %
Aroma (end of boil)	Tomyski	35 g	0 min	4.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

## Notes

- wysycenie 8g/l  
zelatya w  
wit c  
*May 1, 2024, 12:28 AM*