

# LEM | Grodziskie

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **12**
- SRM **2.9**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **7.5 %**
- Size with trub loss **23.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.56 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **20.5 liter(s)**

## Steps

- Temp **46 C**, Time **10 min**
- Temp **53 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **10 min**
- Temp **79 C**, Time **0 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **49.7C**
- Add grains
- Keep mash **10 min** at **46C**
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **10 min** at **73C**
- Keep mash **0 min** at **79C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **28.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3 kg (66.7%)	80 %	3
Grain	Viking Pilsner malt	1.5 kg (33.3%)	82 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	55 min	4 %
Boil	Lublin (Lubelski)	10 g	25 min	4 %
Boil	Lublin (Lubelski)	5 g	5 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	12.65 g	Safbrew