

## #30 Grodziskie robocze

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **20**
- SRM **2.9**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **15 %**
- Size with trub loss **28.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **36 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **15.2 liter(s)**
- Total mash volume **19 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **71 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **15.2 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **71C**
- Keep mash **5 min** at **77C**
- Sparge using **24.6 liter(s)** of **76C** water or to achieve **36 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pszeniczny wędzony	2.5 kg (65.8%)	80 %	5
Grain	Słód wędzony bukiem, viking malt	0.5 kg (13.2%)	81 %	10
Grain	Briess - Carapils Malt	0.2 kg (5.3%)	74 %	2
Grain	Pszeniczny	0.6 kg (15.8%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	8.8 %
Boil	Lublin (Lubelski)	40 g	5 min	4 %
Boil	Marynka	25 g	5 min	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	Fermentis