

# Grodziskie full smoked

- Gravity **7.3 BLG**
- ABV **2.8 %**
- IBU **15**
- SRM **2.4**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **25.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

## Steps

- Temp **64 C**, Time **35 min**
- Temp **68 C**, Time **20 min**
- Temp **76 C**, Time **15 min**

## Mash step by step

- Heat up **9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **35 min** at **64C**
- Keep mash **20 min** at **68C**
- Keep mash **15 min** at **76C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **25.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	2 kg (66.7%)	80 %	3
Grain	Słód Wędzony Steinbach	1 kg (33.3%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lomik	20 g	60 min	3.8 %
Boil	Lomik	10 g	30 min	3.8 %
Boil	Lomik	20 g	5 min	3.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11 g	Safbrew