

# Imperial Grodziskie

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **25**
- SRM **3**
- Style **Grodziskie**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **2 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **38 C**, Time **30 min**
- Temp **52 C**, Time **50 min**
- Temp **63 C**, Time **20 min**
- Temp **70 C**, Time **20 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **41C**
- Add grains
- Keep mash **30 min** at **38C**
- Keep mash **50 min** at **52C**
- Keep mash **20 min** at **63C**
- Keep mash **20 min** at **70C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	5 kg (100%)	80 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tomyski	80 g	60 min	2.8 %
Aroma (end of boil)	Tomyski	20 g	10 min	2.8 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Fining	łuska ryżowa	0.3 g	Mash	120 min