

# Hoppy Grodziskie v3

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **40**
- SRM **2.2**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13.5 liter(s)**
- Boil time **75 min**
- Evaporation rate **20 %/h**
- Boil size **17.4 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **6.1 liter(s)**
- Total mash volume **7.9 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **6.1 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **17.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	1.7 kg (97.1%)	80 %	3
Grain	Weyermann - Acidulated Malt	0.05 kg (2.9%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Summit	10 g	30 min	14.3 %
Aroma (end of boil)	Mandarina Bavaria	20 g	15 min	7.5 %
Aroma (end of boil)	Mandarina Bavaria	20 g	0 min	7.5 %
Dry Hop	Mandarina Bavaria	60 g	3 day(s)	7.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Safale

## Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Other	Łuska ryżowa	100 g	Mash	15 min
Fining	Mech irlandzki	5 g	Boil	15 min
Water Agent	Gips piwowarski	2 g	Mash	60 min