

# Hoppy Grodziskie v1

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **25**
- SRM **3.7**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **37 C**, Time **10 min**
- Temp **52 C**, Time **15 min**
- Temp **70 C**, Time **45 min**
- Temp **75 C**, Time **30 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **39.4C**
- Add grains
- Keep mash **10 min** at **37C**
- Keep mash **15 min** at **52C**
- Keep mash **45 min** at **70C**
- Keep mash **30 min** at **75C**
- Sparge using **19 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Smoked Malt	4 kg (100%)	81 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Falconer's Flight	20 g	15 min	11 %
Whirlpool	Falconer's Flight	30 g	20 min	11 %
73-75 °C				
Dry Hop	Falconer's Flight	20 g	2 day(s)	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	50 ml	Fermentis
Fermentacja burzliwa 17-18 °C Fermentacja cicha 7 dni 12 °C, potem chmiel na zimno 2 dni, następnie żelatyna i cold crash 7 dni w 0-2 °C				

## Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc	1.5 g	Boil	15 min
Other	łuska orkiszowa	100 g	Mash	90 min
Fining	żelatyna	5 g	Secondary	3 day(s)

## Notes

- pH zacieru 5,2-5,3  
pH brzeczki 5,1-5,2  
*Sep 5, 2018, 6:11 PM*