

Grodziskie chmielone mocno

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **68**
- SRM **2.5**
- Style **Grodziskie**

Batch size

- Expected quantity of finished beer **70 liter(s)**
- Trub loss **5 %**
- Size with trub loss **73.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **93.8 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **44 liter(s)**
- Total mash volume **55 liter(s)**

Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **44 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **60.8 liter(s)** of **76C** water or to achieve **93.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Grodziski	5 kg (45.5%)	80 %	4
Grain	Grodziski pszeniczny wędzony dębem	3 kg (27.3%)	80 %	3
Grain	Heidelberg	2 kg (18.2%)	80.5 %	2
Grain	Słód Caramel Pils	0.5 kg (4.5%)	75 %	6
Grain	Słód dekstrynowy	0.5 kg (4.5%)	70 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Zula	100 g	10 min	11.5 %
Mash	Izabella	100 g	15 min	6 %
Mash	Lubelski	100 g	15 min	4 %
Boil	Zula	100 g	10 min	11.5 %
Boil	Izabella	100 g	15 min	6 %
Boil	Lubelski	100 g	15 min	4 %
Aroma (end of boil)	Zula	100 g	10 min	11.5 %

Aroma (end of boil)	Izabella	100 g	15 min	6 %
Aroma (end of boil)	Lublin (Lubelski)	100 g	30 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Us-05	Ale	Dry	22 g	Fermentis

Extras

Type	Name	Amount	Use for	Time
Fining	Whiriflog	5 g	Boil	15 min