Hoppy Grodziskie APA

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **29**
- SRM **3.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **7.5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **65 C**, Time **60 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	5 kg *(89.3%)*	80 %	3
Grain	Viking Vienna Malt	0.6 kg *(10.7%)*	79 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus US 2018	25 g	60 min	11 %