

# APA domowe chmiele 23L

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **41**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **28.8 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	4.54 kg (86.3%)	81 %	4
Grain	Strzegom Karmel 150	0.12 kg (2.3%)	75 %	150
Grain	Pszenica niestodowana	0.6 kg (11.4%)	75 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	18.16 g	60 min	13.5 %
Boil	Magnum	18.16 g	30 min	13.5 %
Aroma (end of boil)	Sybilla	18.16 g	5 min	3.5 %
Aroma (end of boil)	Sybilla	18.16 g	0 min	3.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Ale	Liquid	1513.16 ml	Fermentum Mobile