

PAPA American Pale Ale

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **39**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **12.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **9.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.7 kg (60.7%)	80 %	4
Grain	Strzegom Pale Ale	1 kg (35.7%)	79 %	6
Grain	Carahell	0.1 kg (3.6%)	77 %	26

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	7.5 g	20 min	13.1 %
Boil	Centennial	10 g	20 min	9.4 %
Boil	Equinox	10 g	10 min	13.1 %
Boil	Centennial	10 g	10 min	9.4 %
Whirlpool	Equinox	12.5 g	0 min	13.1 %
Whirlpool	Centennial	10 g	0 min	9.4 %
Dry Hop	Centennial	20 g	5 day(s)	10.5 %
2 dzień burzliwej				
Dry Hop	Equinox	20 g	4 day(s)	13.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale US-05	Ale	Slant	100 ml	---
--------------	-----	-------	--------	-----