

# APA z piwnego kraftu

- Gravity **15.2 BLG**
- ABV ---
- IBU **85**
- SRM **12.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **95 min**
- Evaporation rate **10 %/h**
- Boil size **24 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **22.9 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **17.8 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **24 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (78.4%)	79 %	6
Grain	Strzegom Monachijski typ I	0.8 kg (15.7%)	79 %	16
Grain	Karmelowy Czerwony	0.2 kg (3.9%)	75 %	59
Grain	Strzegom Karmel 300	0.1 kg (2%)	70 %	299

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	20 g	60 min	15.5 %
Boil	Simcoe	30 g	40 min	13.2 %
Boil	Cascade	10 g	30 min	6 %
Aroma (end of boil)	Cascade	15 g	0 min	6 %
Dry Hop	Cascade	30 g	3 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11.5 g	Fermentis
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## Notes

- blg przed gotowaniem >13 blg, można było jeszcze wystodzić trochę  
*Dec 2, 2016, 9:00 PM*