

## #33 - APA

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **37**
- SRM **5.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.9 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **27.9 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22.2 liter(s)** of strike water to **74.2C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1 kg (17.5%)	79 %	5
Grain	Strzegom Golden Ale	2 kg (35.1%)	79 %	11
Grain	Maris Otter Pale Ale Crisp	2.7 kg (47.4%)	83 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus	10 g	40 min	14.5 %
Boil	Amarillo	15 g	30 min	7.1 %
Boil	Amarillo	15 g	15 min	7.1 %
Boil	Columbus	15 g	15 min	14.5 %
Whirlpool	Columbus	10 g	5 min	14.5 %
Whirlpool	Amarillo	10 g	5 min	7.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	FERMENTIS

### Notes

- Warzenie 13XII  
wyszło 26L 13,1BLG

Cicha 22XII przy 4,9BLG podzielone 2x12,5L

A: +15g Amarillo +15g Columbus

B: +450ml owoców dla dzieci: mus jabłko/brzoskwinia/mango

Rozlew 27XII:

A: 10stC 4,9BLG 11L + 0,4L + 48g cukru dla 2,2CO2

B: 10stC 5BLG 12L + 0,45L + 45gram dla 2,1CO2

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