

## #64 APA Amarillo

- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **39**
- SRM **7.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **4 %**
- Size with trub loss **25.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **24.2 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **19.8 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **30.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop Pale Ale	4 kg (90.9%)	82 %	6
Grain	Karmelowy Czerwony	0.3 kg (6.8%)	75 %	59
Grain	Caraaroma	0.1 kg (2.3%)	78 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	11 %
Boil	Amarillo	10 g	30 min	7.1 %
Boil	Amarillo	20 g	10 min	7.1 %
Boil	Amarillo	20 g	0 min	7.1 %
Dry Hop	Amarillo	50 g	4 day(s)	7.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM55 Zielone Wzgórze	Ale	Liquid	150 ml	Fermentum Mobile