

#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 |