

## #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 |