

## APA v12 #110

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **36**
- SRM **5.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **15.7 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **24 %/h**
- Boil size **22.4 liter(s)**

### Mash information

- Mash efficiency **72.7 %**
- Liquor-to-grist ratio **3.85 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **18.9 liter(s)**

### Steps

- Temp **67 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **7 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **22.4 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount         | Yield  | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Mep©Ale              | 3.4 kg (87.2%) | 82.2 % | 4.8 |
| Grain | pszeniczny - bruntal | 0.3 kg (7.7%)  | 83 %   | 5   |
| Grain | abbey - chateau      | 0.2 kg (5.1%)  | 78 %   | 45  |

### Hops

| Use for             | Name             | Amount | Time     | Alpha acid |
|---------------------|------------------|--------|----------|------------|
| Boil                | Falconers Flight | 14 g   | 60 min   | 10.3 %     |
| Aroma (end of boil) | Falconers Flight | 50 g   | 5 min    | 10.3 %     |
| Dry Hop             | Falconers Flight | 66 g   | 2 day(s) | 10.3 %     |

### Yeasts

| Name                           | Type | Form   | Amount | Laboratory |
|--------------------------------|------|--------|--------|------------|
| WLP090 - San Diego Super Yeast | Ale  | Liquid | 40 ml  | White Labs |

### Extras

| Type        | Name | Amount | Use for | Time |
|-------------|------|--------|---------|------|
| Water Agent | gips | 2.5 g  | Mash    | ---  |

|             |                        |       |          |        |
|-------------|------------------------|-------|----------|--------|
| Water Agent | kwask mlekowy 80% [ml] | 4.4 g | Mash     | ---    |
| Water Agent | chlorek wapnia [ml]    | 0 g   | Mash     | ---    |
| Water Agent | epsom                  | 0.5 g | Mash     | ---    |
| Water Agent | mech irlandzki         | 3 g   | Boil     | 10 min |
| Water Agent | kwask askorbinowy      | 3 g   | Bottling | ---    |