

APA

- Gravity **12.1 BLG**
- ABV ---
- IBU **39**
- SRM **12.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **15 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **52 C**, Time **5 min**
- Temp **62 C**, Time **65 min**
- Temp **67 C**, Time **5 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **5 min** at **52C**
- Keep mash **65 min** at **62C**
- Keep mash **5 min** at **67C**
- Keep mash **15 min** at **72C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński | 3.2 kg (71.1%) | 81 % | 4 |
| Grain | Weyermann pszeniczny jasny | 0.2 kg (4.4%) | 80 % | 6 |
| Grain | Weyermann - Carafa I | 0.1 kg (2.2%) | 70 % | 690 |
| Grain | Monachijski | 1 kg (22.2%) | 80 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil | Marynka | 25 g | 60 min | 10 % |
| Boil | Sorachi Ace | 10 g | 5 min | 10 % |
| Boil | Sorachi Ace | 10 g | 1 min | 10 % |
| Dry Hop | Sorachi Ace | 10 g | 7 day(s) | 10 % |
| Boil | Lublin (Lubelski) | 20 g | 60 min | 4 % |