

APA #23

- Gravity **13.6 BLG**
- ABV ---
- IBU **58**
- SRM **7.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.7 liter(s)**

Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **26.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | Bruntal Pale Ale | 5 kg (93.3%) | 80 % | 6.5 |
| Grain | Bruntal pszeniczny | 0.2 kg (3.7%) | 83 % | 4.5 |
| Grain | Rye, Flaked | 0.1 kg (1.9%) | 78.3 % | 4 |
| Grain | Chateau Special B Malt | 0.06 kg (1.1%) | 77 % | 300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| First Wort | Mosaic | 7 g | 90 min | 11.7 % |
| Boil | Amarillo | 20 g | 20 min | 7.5 % |
| Boil | Cascade | 20 g | 20 min | 5.9 % |
| Boil | Mosaic | 25 g | 20 min | 11.7 % |
| Aroma (end of boil) | Amarillo | 8 g | 7 min | 7.5 % |
| Aroma (end of boil) | Cascade | 12 g | 7 min | 5.9 % |
| Aroma (end of boil) | Mosaic | 18 g | 7 min | 11.7 % |
| Aroma (end of boil) | Citra | 10 g | 7 min | 12 % |
| Dry Hop | Simcoe | 9 g | 5 day(s) | 11.6 % |

| | | | | |
|---------|--------|------|----------|--------|
| Dry Hop | Mosaic | 42 g | 5 day(s) | 11.7 % |
|---------|--------|------|----------|--------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| US West Coast | Ale | Dry | 10 g | Gozdawa |
| Danstar - Nottingham | Ale | Slant | 100 ml | Danstar |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------------|--------|---------|-------|
| Fining | irish moss | 3 g | Boil | 7 min |
| Water Agent | gips | 5 g | Mash | --- |