

APA

- Gravity **15 BLG**
- ABV ---
- IBU **37**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **70 C**, Time **20 min**
- Temp **64 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **20 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|--------|-----|
| Grain | Weyermann - Pale Ale Malt | 2 kg (39.2%) | 85 % | 7 |
| Grain | Pilsnerński | 2 kg (39.2%) | 85 % | 4 |
| Grain | Acid Malt | 0.1 kg (2%) | 58.7 % | 6 |
| Grain | Oats, Flaked | 0.4 kg (7.8%) | 80 % | 2 |
| Grain | Wheat, Flaked | 0.6 kg (11.8%) | 77 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|--------|------------|
| Boil | Amarillo | 15 g | 60 min | 8.9 % |
| Boil | Centennial | 15 g | 60 min | 8.5 % |
| Boil | Amarillo | 10 g | 30 min | 8.9 % |
| Boil | Centennial | 10 g | 30 min | 8.5 % |
| Whirlpool | Centennial | 10 g | 60 min | 8.5 % |
| Whirlpool | Amarillo | 10 g | 60 min | 8.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|--------------------------|-----|--------|---------|------------------|
| FM11 Wichrowe Wzgórze | Ale | Liquid | 1000 ml | Fermentum Mobile |
|--------------------------|-----|--------|---------|------------------|

Notes

- Drożdże to starter 1L
Jul 26, 2015, 9:38 PM