

# APA

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **37**
- SRM **4.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **12.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **75C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Briess - Pale Ale Malt     | 4 kg (95.2%)  | 80 %  | 7   |
| Grain | Caramel/Crystal Malt - 20L | 0.2 kg (4.8%) | 75 %  | 39  |

## Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Horizon                | 20 g   | 60 min   | 14 %       |
| Aroma (end of boil) | Ahtanum                | 10 g   | 5 min    | 5 %        |
| Aroma (end of boil) | Amarillo               | 10 g   | 5 min    | 9.5 %      |
| Dry Hop             | Equinox                | 20 g   | 3 day(s) | 13.1 %     |
| Dry Hop             | Columbus/Tomahawk/Zeus | 20 g   | 3 day(s) | 15.5 %     |

## Yeasts

| Name                 | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale  | Dry  | 20 g   | Danstar    |

## Notes

- Piwo o raczej delikatnym aromacie. Bardzo pijalne. Następnym razem zwiększyć ilość słodów i chmieli na zimno.  
*Feb 25, 2018, 11:38 AM*