

## APA 13 BLG # 71

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **35**
- SRM **4.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

### Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **17.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

### Fermentables

| Type  | Name                     | Amount        | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Pilzneński               | 5 kg (87.7%)  | 81 %  | 4   |
| Grain | Karmelowy Jasny<br>30EBC | 0.5 kg (8.8%) | 75 %  | 30  |
| Grain | Słód Owsiany             | 0.2 kg (3.5%) | 61 %  | 5   |

### Hops

| Use for   | Name       | Amount | Time     | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil      | Centennial | 30 g   | 45 min   | 10.5 %     |
| Whirlpool | Amarillo   | 15 g   | 10 min   | 9.5 %      |
| Whirlpool | Simcoe     | 15 g   | 10 min   | 13.2 %     |
| Dry Hop   | Amarillo   | 15 g   | 4 day(s) | 9.5 %      |
| Dry Hop   | Simcoe     | 15 g   | 4 day(s) | 13.2 %     |
| Dry Hop   | Cascade    | 30 g   | 4 day(s) | 6 %        |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 300 ml | Fermentis  |