

## BP/PB

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- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **26**
- SRM **14.3**
- Style **Brown Porter**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

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

### Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount        | Yield  | EBC |
|-------|---------------------------|---------------|--------|-----|
| Grain | Weyermann - Pale Ale Malt | 3 kg (48.4%)  | 85 %   | 7   |
| Grain | Colorado Honig            | 1 kg (16.1%)  | 79 %   | 6   |
| Grain | Briess - Munich Malt 20L  | 1 kg (16.1%)  | 74 %   | 39  |
| Grain | Simpsons - Crystal Rye    | 0.5 kg (8.1%) | 73 %   | 177 |
| Grain | Abbey Castle              | 0.5 kg (8.1%) | 80 %   | 45  |
| Sugar | Milk Sugar (Lactose)      | 0.2 kg (3.2%) | 76.1 % | 0   |

### Hops

| Use for | Name          | Amount | Time   | Alpha acid |
|---------|---------------|--------|--------|------------|
| Boil    | Kent Goldings | 50 g   | 45 min | 5.5 %      |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | Fermentis  |

### Extras

| Type   | Name | Amount | Use for | Time   |
|--------|------|--------|---------|--------|
| Flavor | PB2  | 500 g  | Boil    | 15 min |

|        |         |        |           |          |
|--------|---------|--------|-----------|----------|
| Flavor | Jagody? | 500 g  | Boil      | 15 min   |
| Flavor | Jagody? | 1000 g | Secondary | 5 day(s) |