

## BRETT IPA v3 #44

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **54**
- SRM **5.1**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

### Mash information

- Mash efficiency **78.5 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.4 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **75C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount          | Yield  | EBC |
|-------|------------------------|-----------------|--------|-----|
| Grain | Bestmalz - pilzneński  | 2.25 kg (41.7%) | 80.5 % | 4   |
| Grain | Bruntal - pilzneński   | 1.25 kg (23.1%) | 81 %   | 4   |
| Grain | Weyermann - Pale Ale   | 0.1 kg (1.9%)   | 79 %   | 6.5 |
| Grain | Bestmalz - pszeniczny  | 0.6 kg (11.1%)  | 82 %   | 4.5 |
| Grain | Weyermann - pszeniczny | 0.7 kg (13%)    | 82 %   | 4   |
| Grain | Viking - Rye Malt      | 0.2 kg (3.7%)   | 81 %   | 8   |
| Grain | Bestmalz - Caramelpils | 0.2 kg (3.7%)   | 75 %   | 5   |
| Grain | Chateau - Crystal      | 0.1 kg (1.9%)   | 78 %   | 150 |

### Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Topaz      | 7 g    | 60 min | 15.5 %     |
| Aroma (end of boil) | Columbus   | 26 g   | 20 min | 12.5 %     |
| Aroma (end of boil) | Centennial | 30 g   | 15 min | 9.4 %      |
| Aroma (end of boil) | Palisade   | 51 g   | 5 min  | 6.1 %      |
| Aroma (end of boil) | Galaxy     | 10 g   | 5 min  | 14.5 %     |

|         |         |      |          |        |
|---------|---------|------|----------|--------|
| Dry Hop | Cascade | 20 g | 5 day(s) | 7.1 %  |
| Dry Hop | Mosaic  | 40 g | 5 day(s) | 12 %   |
| Dry Hop | Citra   | 40 g | 5 day(s) | 13.5 % |

### Yeasts

| Name                           | Type | Form  | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------|
| Amalgamation Brett Super Blend | Ale  | Slant | 150 ml | White Labs |

### Extras

| Type        | Name                  | Amount | Use for | Time  |
|-------------|-----------------------|--------|---------|-------|
| Water Agent | Gips                  | 5.5 g  | Mash    | ---   |
| Fining      | irish moss            | 3 g    | Boil    | 7 min |
| Water Agent | kwas mlekowy 80% [ml] | 4.54 g | Mash    | ---   |
| Water Agent | chlerek wapnia [ml]   | 3.43 g | Mash    | ---   |
| Water Agent | sól epsom             | 2 g    | Mash    | ---   |