

## CASCADE APA

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **60**
- SRM **16.7**
- Style **Rye IPA**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **10.4 liter(s)**
- Total mash volume **13.7 liter(s)**

### Fermentables

| Type  | Name                     | Amount         | Yield  | EBC |
|-------|--------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen   | 2.5 kg (76.9%) | 80.5 % | 4   |
| Grain | Karmelowy żytni Strzegom | 0.5 kg (15.4%) | 75 %   | 150 |
| Grain | Bestmalz Carmel Pils     | 0.1 kg (3.1%)  | 75 %   | 5   |
| Grain | Strzegom Karmel 600      | 0.05 kg (1.5%) | 68 %   | 601 |
| Grain | Melanoiden Malt          | 0.1 kg (3.1%)  | 80 %   | 39  |

### Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 10 g   | 60 min | 15.5 %     |
| Boil    | Enigma (AUS)           | 5 g    | 20 min | 17.2 %     |
| Boil    | Galaxy                 | 5 g    | 20 min | 15 %       |
| Boil    | Enigma (AUS)           | 5 g    | 10 min | 17.2 %     |
| Boil    | Galaxy                 | 5 g    | 10 min | 15 %       |
| Boil    | Enigma (AUS)           | 20 g   | 0 min  | 17.2 %     |
| Boil    | Galaxy                 | 20 g   | 0 min  | 15 %       |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |