

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 |