

a1

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **34**
- SRM **14.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|--------|-----|
| Grain | Briess - Pilsen Malt | 5 kg (90.9%) | 80.5 % | 2 |
| Grain | Carafa II | 0.2 kg (3.6%) | 70 % | 812 |
| Grain | Strzegom Karmel 150 | 0.3 kg (5.5%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Marynka | 15 g | 60 min | 10 % |
| Aroma (end of boil) | Cascade | 25 g | 20 min | 6 % |
| Aroma (end of boil) | Citra | 25 g | 10 min | 12 % |
| Dry Hop | Citra | 10 g | 7 day(s) | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|-------|------|--------|------------|
| US-05 | Lager | Dry | 5 g | --- |