

Graff v3

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **46**
- SRM **11.6**
- Style **English 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 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **11.2 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Monachijski | 1.5 kg (53.6%) | 80 % | 16 |
| Grain | Pszeniczny | 0.5 kg (17.9%) | 85 % | 4 |
| Grain | Karmelowy Czerwony | 0.2 kg (7.1%) | 75 % | 59 |
| Grain | Strzegom Karmel 150 | 0.2 kg (7.1%) | 75 % | 150 |
| Grain | Płatki owsiane | 0.4 kg (14.3%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------------|--------|--------|------------|
| Boil | Oktawia | 20 g | 30 min | 7.1 % |
| Boil | Nelson Sauvín | 20 g | 15 min | 11 % |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------------|---------|---------|------|
| Other | Sok jabłkowy | 10000 g | Primary | --- |