

# Black IPA Single HOP Amarillo ver. 1 10L

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **60**
- SRM **36.8**
- Style **American 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 **10.5 liter(s)**
- Total mash volume **14 liter(s)**

## Fermentables

| Type  | Name                             | Amount          | Yield | EBC  |
|-------|----------------------------------|-----------------|-------|------|
| Grain | Pilzneński                       | 2.25 kg (64.7%) | 81 %  | 4    |
| Grain | Strzegom Monachijski typ I       | 0.23 kg (6.5%)  | 79 %  | 16   |
| Grain | Żytni                            | 0.23 kg (6.5%)  | 85 %  | 8    |
| Grain | Karmelowy żytni Strzegom         | 0.23 kg (6.5%)  | 75 %  | 150  |
| Grain | Carafa III                       | 0.23 kg (6.5%)  | 70 %  | 1034 |
| Grain | Płatki owsiane                   | 0.23 kg (6.5%)  | 85 %  | 3    |
| Grain | Fawcett - Pszeniczny Czekoladowy | 0.1 kg (2.9%)   | 73 %  | 1001 |

## Hops

| Use for    | Name     | Amount | Time     | Alpha acid |
|------------|----------|--------|----------|------------|
| First Wort | Amarillo | 7.5 g  | 60 min   | 8.9 %      |
| Boil       | Amarillo | 22.5 g | 30 min   | 8.9 %      |
| Boil       | Amarillo | 22.5 g | 15 min   | 8.9 %      |
| Whirlpool  | Amarillo | 22.5 g | 0 min    | 8.9 %      |
| Dry Hop    | Amarillo | 22.5 g | 4 day(s) | 8.9 %      |

## Yeasts

| Name                        | Type | Form   | Amount | Laboratory       |
|-----------------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen        | Ale  | Liquid | 500 ml | Fermentum Mobile |
| starter 1000 ml dekantowany |      |        |        |                  |