

# FOREST BLACK IPA

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **57**
- SRM **34.9**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC  |
|-------|----------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński  | 5 kg (66.7%)   | 80 %  | 4    |
| Grain | Carafa III           | 0.7 kg (9.3%)  | 70 %  | 1034 |
| Grain | Słód owsiany Fawcett | 0.5 kg (6.7%)  | 61 %  | 5    |
| Grain | Płatki pszeniczne    | 0.5 kg (6.7%)  | 60 %  | 3    |
| Grain | Pszeniczny           | 0.8 kg (10.7%) | 85 %  | 4    |

## Hops

| Use for             | Name        | Amount | Time     | Alpha acid |
|---------------------|-------------|--------|----------|------------|
| Boil                | Chinook pl  | 40 g   | 60 min   | 6.2 %      |
| Boil                | Magnum      | 16 g   | 60 min   | 10 %       |
| Boil                | Pacific Gem | 20 g   | 30 min   | 12.6 %     |
| Boil                | Chinook     | 15 g   | 15 min   | 10.7 %     |
| Aroma (end of boil) | Simcoe      | 20 g   | 0 min    | 11.3 %     |
| Aroma (end of boil) | Pacific Gem | 20 g   | 0 min    | 15.3 %     |
| Aroma (end of boil) | Chinook     | 10 g   | 0 min    | 13 %       |
| Dry Hop             | Pacific Gem | 60 g   | 5 day(s) | 15.3 %     |
| Dry Hop             | Chinook     | 40 g   | 5 day(s) | 13 %       |
| Dry Hop             | Simcoe      | 30 g   | 5 day(s) | 11.3 %     |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| us-05 | Ale  | Dry  | 11 g   | ---        |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|       |             |      |      |       |
|-------|-------------|------|------|-------|
| Spice | pȩdy sosny | 50 g | Boil | 5 min |
|-------|-------------|------|------|-------|