

# Northern Altbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **33**
- SRM **15.5**
- Style **Northern German Altbier**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **2 %**
- Size with trub loss **19.4 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **21.9 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **15.1 liter(s)**
- Total mash volume **18.9 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **15.1 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **72C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **21.9 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Monachijski typ I | 3.2 kg (84.8%) | 79 %  | 16  |
| Grain | Weyermann Caramunich 3     | 0.5 kg (13.2%) | 76 %  | 150 |
| Grain | Carafa II                  | 0.075 kg (2%)  | 70 %  | 812 |

## Hops

| Use for             | Name                 | Amount | Time   | Alpha acid |
|---------------------|----------------------|--------|--------|------------|
| Boil                | lunga                | 20 g   | 60 min | 11 %       |
| Aroma (end of boil) | Hellertau Mittelfrüh | 20 g   | 15 min | 3.7 %      |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale K-97 | Ale  | Slant | 200 ml | Fermentis  |

## Extras

| Type        | Name             | Amount | Use for | Time   |
|-------------|------------------|--------|---------|--------|
| Water Agent | soda oczyszczona | 2 g    | Boil    | 60 min |