

# Whiskies

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- Gravity **15.6 BLG**
- ABV ---
- IBU **71**
- SRM **40**
- Style **Foreign Extra Stout**

## 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 **24.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **21.7 liter(s)**

## Steps

- Temp **53 C**, Time **10 min**
- Temp **62 C**, Time **10 min**
- Temp **71 C**, Time **40 min**
- Temp **79 C**, Time **20 min**

## Mash step by step

- Heat up **15.5 liter(s)** of strike water to **59.6C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **10 min** at **62C**
- Keep mash **40 min** at **71C**
- Keep mash **20 min** at **79C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

## Fermentables

| Type  | Name                         | Amount        | Yield | EBC  |
|-------|------------------------------|---------------|-------|------|
| Grain | Castle Malting Whisky Nature | 1 kg (16.1%)  | 85 %  | 4    |
| Grain | Strzegom Karmel 300          | 1 kg (16.1%)  | 70 %  | 404  |
| Grain | Strzegom Pale Ale            | 4 kg (64.5%)  | 79 %  | 7    |
| Grain | Strzegom Czekoladowy ciemny  | 0.2 kg (3.2%) | 68 %  | 1624 |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Tomahawk | 20 g   | 60 min | 15.5 %     |
| Boil    | Tomahawk | 20 g   | 30 min | 15.5 %     |
| Boil    | Agnus    | 20 g   | 15 min | 14 %       |

## Yeasts

| Name          | Type | Form | Amount | Laboratory |
|---------------|------|------|--------|------------|
| Saflager S-23 | Ale  | Dry  | 11.5 g | Fermentis  |