

**Wet End - Process Formulation (RETAN)**



|                          |                                                    |              |              |
|--------------------------|----------------------------------------------------|--------------|--------------|
| N4 10 MAREA WET END.xlsx |                                                    | Date:        | 11-Jan-2023  |
|                          |                                                    | Technician:  | Grosch       |
| Company:                 |                                                    | Score:       | Select Score |
| Type of Leather:         | Select Article                                     | Trial - N°:  | G 801        |
| Aim of Trial:            | MAREA Floterone - Waterproof floater low bisphenol | Color:       |              |
| Project - N°:            |                                                    | Piece count: |              |
| Material:                | wet-blue Scanhide (North German Bulls)             | Substance:   | 2,2/2,4      |
| % refer to:              | Shaved                                             | Weight:      | 35,400 kg    |
|                          |                                                    | Drum - N°:   |              |

| Operation | Add | %      | Weight in kg | Product                 | Temp. in °C | Dilution (1 : x) | Time in min | Control     |
|-----------|-----|--------|--------------|-------------------------|-------------|------------------|-------------|-------------|
|           |     | 200,00 | 70,800       | Water                   | 35          |                  |             |             |
|           |     | 0,30   | 0,106        | Formic Acid             |             | 10               | 30          |             |
| Drain     |     |        |              |                         |             |                  |             |             |
|           |     | 100,00 | 35,400       | Water                   | 35          |                  |             |             |
|           |     | 3,00   | 1,062        | Levotan AT01            |             | 4                | 30          |             |
|           | +   | 2,00   | 0,708        | Tanigan PAK             |             |                  |             |             |
|           |     | 1,50   | 0,531        | Sodium Bicarbonate      |             |                  | 15          |             |
|           | +   | 3,00   | 1,062        | Levotan L               |             |                  |             |             |
|           |     | 1,00   | 0,354        | Levotan XB              |             | 3                | 45          |             |
|           |     |        |              |                         |             |                  |             |             |
|           | +   | 20,00  | 7,080        | Tanigan BN-O            |             |                  |             |             |
|           |     |        |              |                         |             |                  | 30          |             |
|           | +   | 2,00   | 0,708        | Ammonium Bicarbonate    |             |                  | 180         | o/n pH: 6,5 |
| Drain     |     |        |              |                         |             |                  |             |             |
|           |     | 200,00 | 70,800       | Water                   | 30          |                  | 10          |             |
| Drain     |     |        |              |                         |             |                  |             |             |
|           |     | 30,00  | 10,620       | Water                   | 30          |                  |             |             |
|           |     | 3,00   | 1,062        | Tanigan PR              |             |                  |             |             |
|           |     | 2,00   | 0,708        | Tanigan SR              |             |                  |             |             |
|           |     | 1,00   | 0,354        | Magnopal SOF            |             | 3                |             |             |
|           |     | 2,00   | 0,708        | Levotan L               |             | 3                | 20          |             |
|           | +   | 1,00   | 0,354        | Baygenal Brown 3BR      |             |                  |             |             |
|           |     | 4,00   | 1,416        | Baygenal D- Brown L-N2G |             |                  | 60          | ∅           |
|           |     |        |              |                         |             |                  |             |             |
|           | +   | 100,00 | 35,400       | Water                   | 55          |                  | 10          |             |
|           |     | 8,00   | 2,832        | Levotan XB              |             |                  |             |             |
|           |     | 2,50   | 0,885        | Levotan WS              |             | 4                | 60          |             |
|           |     |        |              |                         |             |                  |             |             |
|           | +   | 1,00   | 0,354        | Formic Acid             |             | 10               | 10          |             |
|           | +   | 1,00   | 0,354        | Formic Acid             |             | 10               | 10          |             |
|           | +   | 1,50   | 0,531        | Formic Acid             |             | 10               | 30          | pH: 3,4/3,6 |
| Drain     |     |        |              |                         |             |                  |             |             |
|           |     | 200,00 | 70,800       | Water                   | 30          |                  |             |             |
|           |     | 0,50   | 0,177        | Borron WP               |             | 5                | 15          |             |
| Drain     |     |        |              |                         |             |                  |             |             |
|           |     | 150,00 | 53,100       | Water                   | 30          |                  |             |             |
|           |     | 3,00   | 1,062        | Chrome                  |             |                  | 90          |             |
| Drain     |     |        |              |                         |             |                  |             |             |
|           |     | 200,00 | 70,800       | Water                   | 30          |                  | 10          |             |
| Drain     |     |        |              |                         |             |                  |             |             |
|           |     | 200,00 | 70,800       | Water                   | 30          |                  | 10          |             |
| Drain     |     |        |              |                         |             |                  |             |             |

|                                                                                                                                 |                                    |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>Mechanical Operation:</b>                                                                                                    | <b>Process Information:</b>        |
| Horse-up, set-out 4x, toggle dry@45°C, conditioning overnight, stake, mill 30°C/85%RH overnight, then 35°C/40% RH 2hour, stake. |                                    |
|                                                                                                                                 | <b>Running Time:</b> 11 hrs 05 min |

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