

New Product Evaluation

Product	NITRO PURPLE HAZE
Project	#EBO-1191
Start Date	February 4, 1991
Completion Date	December 2, 1991
Objective	To develop a medium-hard veneer that will have a haze finish which will control the degree of backend that a bowler needs depending upon the type of lane conditions that the individual bowls on and is to be compliment ball to the Blue Nitro. This two-piece ball must combine the dynamic core and urethane cover stock which will contain the same two unique additives as in the Blue Nitro. The urethane formula must be a minimum of six (6) points harder than the Blue Nitro to enable the ball to be used on a moderate-to-light oil lane condition.
Core	Dynamic Core
Veneer	<ol style="list-style-type: none">11.5 pounds of urethane in the finished 14, 15, 16 lb. ball.This Ebonite formulation will contain the AJL-51 additive which creates a greater surface area in contact with the lane for greater angle entry. The second additive, HD-106, has hydroxyle groups, double bonds, and ester linkages that provide reaction sites to form a unique, hard-hitting cover stock. Both additives must be the same as in the Blue Nitro.The urethane veneer used in this product must Durometer a minimum of six (6) points harder than the urethane used in the Blue Nitro.
Performance Characteristics	Ball must skid easily through the first 18 feet (heads) of the lane. Ball also must not over-react in the pines (middle of the lanes) on a medium-to-dry lane condition. With the haze finish, the ball must still have hook at the back end and must be able to be put in a ball polisher or be hand polished for even longer skid while still keeping the pins low with no ball deflection.
Test Results	Three independent tests were conducted with PBA, LPBT, and amateur bowlers across the country. (Ref. report #PH141URE). All tests were done on synthetic and wood lanes with medium-to-dry lane conditions. In all tests, the Nitro Purple Haze urethane was the unanimous choice of all players.
Comparison Characteristics	The Nitro Purple Haze has a surface coefficient of .205 which compares to a Blue Sanded Nitro of .347 and also compares to a Shiny Scarlet Turbo of .120. If the Nitro Purple Haze is placed in a ball polisher for five (5) minutes, the surface coefficient then reduces to .135.
Quality Assurance Department Evaluation	Based on the test results referenced above as well as in-house testing and production runs, this product is ready for introduction immediately. Authorization is hereby granted for unlimited production.

General Specifications

Hardness	81 - 83 Shore D
Target Weight	12, 14, 15, 16 pound, -1.0 oz., +4.0 oz.
Top Weight	2.0 to 4.5 ozs. Average 2.5 to 3.5 ozs.
Appearance	Dark purple haze finish with ability to polish if desired
Ball Roundness	+ or - .002" nominal
Core Roundness	Dynamically balanced to + or - .005"
Surface Coefficient	.205
Diameter	8.595" maximum Average 8.585"