

TEST SPECIFICATION

Product:	Match Sticks		
Scope:	Match Sticks	Protocol No.	TYCP-01054-US
		Version	1.0
		Issue Date	Sep 21 2011
		Prepared by	Alex Ma
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Instructions to Vendors:

Dear Valued Vendor:

Product safety is a top priority at Taymark. We, with the assistance of Intertek, a CPSC-accredited third-party testing partner or lab, have identified the various rules and regulations as well as the necessary test requirements that we need to meet in our partnership to sell products in the United States. This has been assembled into our required Test Protocol. Each product that is supplied to us must comply with this Test Protocol and any required associated test protocol(s) identified within it.

You are required by the US Law to verify the products you provide to Taymark (or any other customer marketing to children in the USA) meet the required safety standards. Likewise, Taymark is required by US Law to assure that we have documentation to confirm that you have verified that your products meet the applicable safety standards. Once you have verified that the product(s) you have supplied to us conforms to the corresponding Test Protocol(s), and the testing was conducted within the past twelve (12) months, we ask that the appropriate representative from your company provide Taymark with the proper General Certificate of Conformity ("GCC") and the corresponding documentation that you used to support the GCC, including, where applicable and required, the CPSC-accredited third-party test data. For an example of an acceptable GCC, please go to <http://www.cpsc.gov/about/cpsia/faq/elecfaq.pdf>.

Key

†: Any element on the attached form with the following symbol ("†") is a Mandatory Requirement to which the product(s) or components of product(s) you supply to Taymark must conform. You must perform the associated test(s) and provide Taymark with the test data to support the fact that the test(s) was (were) conducted and that the product(s) or components of product(s) meets the described requirements. You are responsible for conducting the mandatory testing, and you are responsible for any expenses incurred as a result of conducting the test(s) (including, without limitation, the costs and expenses associated with providing any samples, testing, reporting, and preparing the General Certificate of Conformity).

: The symbol ("") on the attached form indicates that additional charges may apply. Taymark's preferred Accredited Third-Party Testing Facility is Intertek. If you choose to use Intertek to conduct the mandatory testing, please reference Taymark and Taylor Corporation when submitting your requests for testing to Intertek as you may be able to take advantage of Taymark and Taylor Corporation's volume discount. You may contact Intertek for a price quote and any additional information they might need in order to conduct the required testing.

Additional Accredited Third-Party Testing facilities can be found at <http://www.cpsc.gov/cgi-bin/labsearch/>.

Note:

Where there is no applicable US standard, Intertek has chosen the most relevant International Standard to assess the product safety and performance. For undated references, the latest edition of the referenced document (including any amendments) applies.

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Attribute	Test Method / Standard	Requirement / Limit	Result
Supplemental Protocol(s)			
*CA Prop 65 (Mandatory in state California)	Intertek Protocol	Consent Judgment of related court case based on California Proposition 65. See http://oehha.ca.gov/prop65.html	
<i>Note: Additional cost, sample size & TAT may be required if testing to one or more supplemental protocols is necessary. Please refer to the above referenced supplemental protocol(s) for additional information.</i>			
Chemical Analysis			
*Lead Content of Paints or Similar Surface Coating	16 CFR 1303 (scope widened)	Shall not contain Lead or Lead compounds in which the Lead content is in excess of 0.009% by weight of the total content (90ppm).	
*†Toxic Elements in Packaging Components (CONEG)	TPCH	Shall comply with TPCH in those states with legislation. Total concentration of Pb, Cd, Hg and hexavalent Cr ≤ 100 ppm.	
Physical Characteristic			
Overall Dimensions	ITS-M0059	Report overall dimensions; shall meet label claims (if applicable).	
Thickness - Splint	ITS-M0059	Report thickness; shall meet label claims (if applicable).	
Overall Weight	ITS-M0059	Report overall weight; shall meet label claims (if applicable).	
Type of match – classification	Fed. Spec. A-A-59489 Section 2	Type I (Paper – Class A: 30 Splint Book, Class B: 20 Splint Book, Class C: 10 Splint Book) Type II (Wood – Class A: Large, “Kitchen” Size Sticks, Class B: Medium Size Sticks, Class C: Small, “Pocket” Size Sticks)	
Match head	Fed. Spec. A-A-59489 Section 3.2	Shall be evenly applied over ends and sides of splints and sticks.	
Count	Fed. Spec. A-A-59489 Section 3.3	Type I, Class A: Shall be 30 matches per book, with 15 splints on each of two rows. Type I, Class B: Shall be 20 matches per book, with 10 splints on each of two rows. Type I, Class C: Shall be 10 matches per book, with 5 splints on each of two rows. Type II, Class A: Average number shall not be less than 250 per box & no box shall contain less than 230 matches. Type II, Class B: Average number shall not be less than 27 per box & no box shall contain less than 21 matches. Type II, Class C: Average number shall not be less than 32 per box & no box shall contain less than 30 matches.	

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Dimensions	Fed. Spec. A-A-59489 Section 3.4		Length		Width
		Classification	Splint / stick with head	Splint, head and base	
		Type I, Class A	35 ± 3mm (1-3/8" ± 1/8")	48 ± 3mm (1-7/8" ± 1/8")	48 ± 2mm (1-7/8" ± 1/16")
		Type I, Class B	35 ± 3mm (1-3/8" ± 1/8")	48 ± 3mm (1-7/8" ± 1/8")	30 ± 2mm (1-3/16" ± 1/16")
		Type I, Class C	35 ± 3mm (1-3/8" ± 1/8")	48 ± 3mm (1-7/8" ± 1/8")	16 ± 2mm (5/8" ± 1/16")
		Type II, Class A	60 ± 3mm (2-3/8" ± 1/8")	-	2.5mm (0.10")
		Type II, Class B	50 ± 3mm (2" ± 1/8")	-	2.3mm (0.09")
		Type II, Class C	44 ± 3mm (1-3/4" ± 1/8")	-	2mm (0.08")
		NOTE: Type I represents width of each row. Type II represents width of each match stick.			
		Striking Surface	Fed. Spec. A-A-59489 Section 3.5	The striking surface on the outside match book or box shall be coated with a preparation which will be used to ignite the matches. The striking surface shall not peel or rub off.	
Construction & Workmanship					
Sharp Points / Edges	16 CFR 1500.48 / 1500.49 (Scope widened)	Shall have no sharp points/edges, other than those required for function.			
Workmanship	Fed. Spec. A-A-59489	No defects. (No splits, cracks or crumbled match heads)			
Defects	Visual Check	Shall have no discernible surface degradation, including crazing, shivering, bubbles, cracks, stains, deformations, chips, fractures, heavy lines, waves, shear marks, scratches, scuff marks, indentations, or blisters.			
Friction	16 CFR 1202.4(a)(c)	Shall be located on the outside back cover near the bottom of the matchbook and none shall be located on the inside of the cover.			
Cover	16 CFR 1202.4(b)	Shall remain closed without external force.			
Bridges / Broken Bridges	16 CFR 1202.4(d)	Shall be no bridges or broken bridges.			
Matchhead Condition	16 CFR 1202.4(e)	Shall not be chipped, split, cracked, or crumbled.			
Matchhead Location	16 CFR 1202.4(f)	No portion of matchhead shall be located outside the cover when closed.			
Staple/Assembly Device	16 CFR 1202.4(g)(h)	Shall not be within or touching the friction area and shall be fully clinched so that the ends are flattened or turned into the cover.			
Performance Test					
Functionality	ITS-M0061	Shall function as intended as received.			

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Effects of Extreme Temperature and Humidity	ITS-M0007	Shall have no corrosion or visual change (e.g. peeling off of coating and/or plating) after one cycle of following conditioning: <ul style="list-style-type: none"> 16 h at 0 °F; 8 h at 120 °F, 95% RH. 	
Performance Test	Fed. Spec. A-A-59489 Section 3.7	100 matches shall be tested. Each match shall be struck on the striking surface until it ignites or becomes damaged. 5 or more failures shall result in rejection of the lot.	
Humidity Resistance Test	Fed. Spec. A-A-59489 Section 3.8	100 matches shall be conditioned at 95% RH & 100°F for 6 hrs. Immediately upon removal from the chamber, each match shall be struck on the striking surface until it ignites or becomes damaged. 30 or more failures shall result in rejection of the lot.	
Igniting Performance - Match	Fed. Spec. A-A-59489	Must ignite effectively without breakage of the splint, head or without cracking, exploding or afterglow.	
Spontaneous Ignition – Hot Air Oven	Fed. Spec. EE-M-101J Section 4.3.2	Note: Matches must be conditioned for a minimum of 48 hrs in at atmosphere maintained at 50 % R.H. at 73.5 +/-2°F (22 to 24°C) prior to the following testing. Place matches in wooden block fixture in circulating hot air oven and raise the temperature to 194 +/- 2°F (90°C) per Section. Expose matches to this environment for 2 hrs. Matches shall not ignite during this period.	
Labeling Requirement			
One Time Use Products	F.P. & L. Act (16 CFR 500) OR NIST Uniform Laws and Regulations Handbook 130	Manufacturer, packer, or distributor's name & address (city, state & zip).	
†Fair Packaging and Labeling Act OR All Other Products		Product Identification.	
†Uniform Packaging and Labeling Regulations		Net quantity of contents shall be expressed in terms of weight or mass, measure, numerical count, or combination so as to give accurate information to facilitate consumer comparison (U.S. and metric units).	
†Country of Origin Marking	19 CFR 134.11	Shall indicate country of origin legibly, permanently, and in comparable size and close proximity to any mention of country other than country in which the article was manufactured or produced. Shall be visible at point of purchase.	
Parts Labeling	Visual Check	Shall match the actual content if present.	
Verify Label Claims	ITS-M0060	Shall comply with all claims.	
Use Labeling	ITS-M0060	Use, care and/or assembly instructions that are clear and understandable shall be provided in language appropriate to destination countries.	
Instructions	ITS-M0060	Shall provide an easy understandable instructions regarding assembly, use and maintenance	

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Marking	16 CFR 1202.6	The manufacturer's or private labeler's name and city or a symbol which will identify the name and city shall appear on the matchbook. In addition, every private labeler must label the matchbook with a code which enables it to identify, if requested, the manufacturer of the product. Boxes or cartons in which two or more caddies are shipped shall be marked "For safety, store in a cool, dry place."	

Remark: Additional tests may be incurred subject to the final samples reviewed by Intertek.